December 18, 2003

Mr. Greg Smith
North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Reference:

Preliminary Site Assessment

Janice Andrews Property (Parcel #005)

2215 Holloway Street

Durham, Durham County, North Carolina NCDOT Project 8.1352402 (U-4010)

WBS Element 35011.1.1 Earth Tech Project No. 71465

Dear Mr. Smith:

Telephone 919.854.6200

Earth Tech of North Carolina, Inc., (Earth Tech) has completed the Preliminary Site Assessment conducted at the above-referenced property. The work was performed in accordance with the Technical and Cost proposal dated October 8, 2003, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated October 13, 2003. Activities associated with the assessment consisted of collecting soil samples for laboratory analysis. The purpose of this report is to document the field activities, present the laboratory analyses, and provide recommendations regarding the property.

Facsimile

919.854.6259

Location and Description

The Janice N. Andrews Property (Parcel #005) is located at 2215 Holloway Street (NC 98) in Durham, Durham County, North Carolina (Figure 1). This location is in the southwest quadrant of the intersection of Holloway Street and Southerland Street. Based on information supplied by the NCDOT and the site visit, Earth Tech understands that the site is a used car lot that was a former convenience store/gas station. No information was available regarding the number or location of any underground storage tanks (USTs), or whether any USTs have been closed at the property. The proposed right-of-way does not affect the building, but it encompasses most of the area in front of the building where a pump island would be expected.

Earth Tech reviewed the North Carolina Department of Environment and Natural Resources (NCDENR) Incident Management database and no incident number was listed for this location. Earth Tech also searched the UST registration database and found no facility identification number for the property address. Because of the probable former presence of USTs and potential for contamination, a Preliminary Site Assessment was requested to evaluate the soils within the right-of-way where storm sewer drain liners would be located.

Site Assessment Activities

On October 23, 2003, Earth Tech mobilized to the site to conduct a Geoprobe[®] direct push investigation to evaluate soil conditions within the proposed right-of-way. Continuous sampling using direct push technology (Regional Probing of Raleigh, North Carolina) resulted in generally good recovery of soil samples from the direct-push holes. Soil samples were collected and contained in 4-foot long acetate sleeves inside the direct push sampler. Each of these sleeves was divided in half for soil sample screening. Each 2-foot interval was placed in a resealable plastic bag and the bag was set aside for a sufficient amount of time to allow volatilization of organic compounds from the soil to the bag headspace. The probe of a flame ionization detector/photo ionization detector (FID/PID) was inserted into the bag and the reading was recorded. After terminating the sample hole, the soil sample from the depth interval with the highest FID/PID reading was submitted to Prism Laboratories, Inc., in Charlotte, North Carolina, using standard chain-of-custody procedures. The laboratory analyzed the soil samples for total petroleum hydrocarbons (TPH) using extraction methods 3550 (diesel fuel/fuel oil) and 5030 (gasoline).

Seven direct-push holes (AN-1 through AN-7) were advanced within the right-of-way at the site to depths ranging from 4 to 8 feet (Figure 2 and Attachment A). Borings AN-1, AN-2, AN-6, and AN-7 were placed to evaluate soil conditions at the proposed drop inlet locations. Borings AN-3, AN-4, and AN-5 were located at equal intervals along the proposed drainage line (Attachment B). The lithology encountered by the direct-push samples generally was consistent throughout the site. The ground surface was covered with about 4 inches of asphalt and gravel. Below the surface treatment was either a medium to light chocolate brown silty clay or mottled medium brown, tan, and white silty clay. Borings AN-2 and AN-5 were terminated at equipment refusal at a depth 4 feet and boring AN-4 at a depth of 6.5 feet. All other borings were terminated at a depth of 8 feet, the maximum depth of the proposed drainage lines. No groundwater was observed in any of the borings. Based on field screening, soil samples from a variety of depths were submitted for laboratory analysis, which are summarized in Table 1. Because no groundwater was encountered, no groundwater sample was collected for analysis.

Analytical Results

Based on the laboratory reports, summarized in Table 1 and presented in Attachment C, petroleum hydrocarbon compounds were detected in three of the seven soil samples collected from the site (Figure 3). Total petroleum hydrocarbons (TPH) concentrations identified as diesel fuel were detected in soil sample AN-1 at a concentration of 160 milligrams per kilogram (mg/kg) and in soil sample AN-5 at a concentration of 18 mg/kg. TPH concentrations identified as gasoline were detected in soil sample AN-1 at a concentration of 3600 mg/kg and in soil sample AN-2 at a concentration of 1.7 mg/kg. No other soil sample contained detectable TPH concentrations. According to the North Carolina Underground Storage Tank Section's Underground Storage Tank Closure Policy

dated August 24, 1998, the action level for TPH analyses is 10 mg/kg for both gasoline and diesel fuel. However, that agency's "Guidelines for Assessment and Corrective Action," dated April, 2001, does not allow for use of TPH analyses for confirmation of the extent of petroleum contamination or its cleanup. As a result, while TPH concentrations are no longer applicable in confirming if soil contamination is present, this analysis is a legitimate screening tool. Based on the TPH action level for UST closures, the assumed action level is 10 mg/kg. The soil sample from borings AN-1 and AN-5 contained TPH concentrations above the 10 mg/kg assumed action level.

Conclusions and Recommendations

A Preliminary Site Assessment was conducted to evaluate the Janice N. Andrews Property (Parcel #005) located at 2215 Holloway Street (NC 98) in Durham, Durham County, North Carolina. A total of seven soil borings were advanced to evaluate the soil conditions on the proposed right-of-way. The laboratory reports of three of the seven soil samples from these borings suggest that diesel fuel or gasoline is present above the detection limits. TPH concentrations above the assumed action level of 10 mg/kg were present in soil samples from borings AN-1 and AN-5. No groundwater sample was collected for analysis to evaluate the groundwater conditions.

To evaluate the volume of soil requiring possible remediation, an isoconcentration map for TPH concentrations above 10 mg/kg (Figure 3) was constructed using the analytical data. The volume of potentially contaminated soil for this site was estimated based on the 10 mg/kg isoconcentration contours. From this map, two areas of potential contamination are present, one at boring AN-1 and one at boring AN-5.

The analytical results of the soil sample from boring AN-1 indicate a diesel fuel concentration of 160 mg/kg and a gasoline concentration of 3600 mg/kg. The soil sample from boring AN-3 contained no detectable TPH concentrations, thus indicating that the contamination is likely confined to the area surrounding boring AN-1. No borings or soil sampling was conducted east of boring AN-1, therefore the extent of contamination was assumed to be the same on both sides of the boring. For the purpose of estimating the volume of contaminated soil in the area of boring AN-1, Earth Tech has assumed (from the field screening data in Table 1) an average contaminated soil thickness of 8 feet with a geometry as shown on Figure 3. Based on a contamination thickness of 8 feet with a width of 35 feet and a length of 35 feet, a volume of approximately 365 cubic yards of contaminated soil is estimated on the right-of-way in this area.

The analytical results of the soil sample from boring AN-5 indicate a diesel fuel concentration of 18 mg/kg. The soil samples from borings AN-2, AN-4, AN-6, and AN-7 contained no detectable TPH concentrations, thus indicating that the contamination is likely confined to the area surrounding boring AN-5. For the purpose of estimating the volume of contaminated soil in the area of boring AN-5, Earth Tech has assumed (from

the field screening data in Table 1) an average contaminated soil thickness of 2 feet with a geometry as shown on Figure 3. Based on a contamination thickness of 2 feet with a width of 20 feet and a length of 20 feet, a volume of approximately 30 cubic yards of contaminated soil is estimated on the right-of-way in this area.

The volumes estimated above were calculated from TPH analytical data, which is no longer valid for remediation of sites reported after January 2, 1998. After this date, MADEP EPH/VPH and EPA Method 8260/8270 analyses will likely be required to confirm cleanup. However, these analyses do not correlate exactly with TPH data and, as a result, the actual volume of contaminated soil may be significantly higher or lower. Earth Tech recommends that a copy of this report be submitted to the Division of Waste Management, UST Section, in the Raleigh Regional Office. If you have any questions, please contact me at (919)854-6238.

Sincerely,

Michael W. Bronse Michael W. Branson, P.G.

Project Manager

Attachments

Project File c:

TABLE 1

FIELD SCREENING AND ANALYTICAL RESULTS ANDREWS PROPERTY (PARCEL #005) DURHAM, DURHAM COUNTY, NORTH CAROLINA NCDOT PROJECT NO. 8.1352402 (U-4010) EARTH TECH PROJECT NO. 71465

LOCATION	DEPTH (ft)	FID READING	SAMPLE ID	ANALYTICAL	ASSUMED TPH
		(ppm)		RESULTS	ACTION LEVEL
		XI ,		(mg/kg)	(mg/kg)
AN-1	0-2	>10.45%			
	2 - 4	>10.45%	AN-1	3550 (160)	10
				5030 (3600)	10
	4 - 6	>10.45%			
	6 - 8	2354			
AN-2	0 - 2	7.2			
	2 - 4	9.3	AN-2	3550 (BQL)	10
				5030 (1.7)	10
AN-3	0 - 2	1.1			
	2 - 4	1.2			
	4 - 6	2.4			
	6 - 8	8.9	AN-3	3550 (BQL)	10
				5030 (BQL)	10
AN-4	0 - 2	3.5			
	2 - 4	9.9	AN-4	3550 (BQL)	10
				5030 (BQL)	10
	4 - 6	3.1			
AN-5	0 - 2	1.7			
	2 - 4	3.3	AN-5	3550 (18)	10
				5030 (BQL)	10
AN-6	0 - 2	5.7	AN-6	3550 (BQL)	10
				5030 (BQL)	10
	2 - 4	2.7			
	4 - 6	0.6			
	6 - 8	0.9			
AN-7	0 - 2	0.9			
	2 - 4	1.7	AN-7	3550 (BQL)	10
				5030 (BQL)	10
	4 - 6	0.2			
Ţ	6 - 8	0.9			

^{3550 -} High boiling point TPH fraction (diesel fuel/fuel oil).

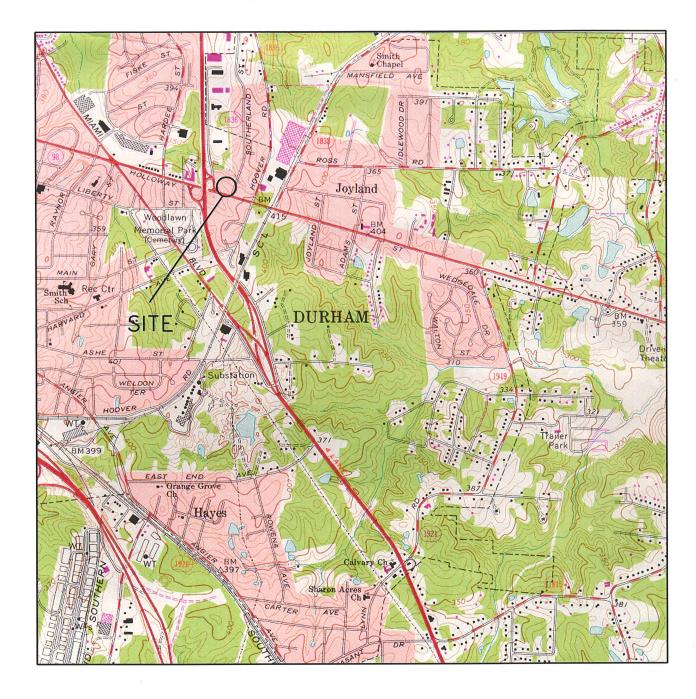
^{5030 -} Low boiling point TPH fraction (gasoline).

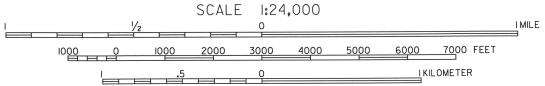
BQL - Below quantitation limit.

ppm - parts per million.

mg/kg - milligrams per kilogram.

FIGURES

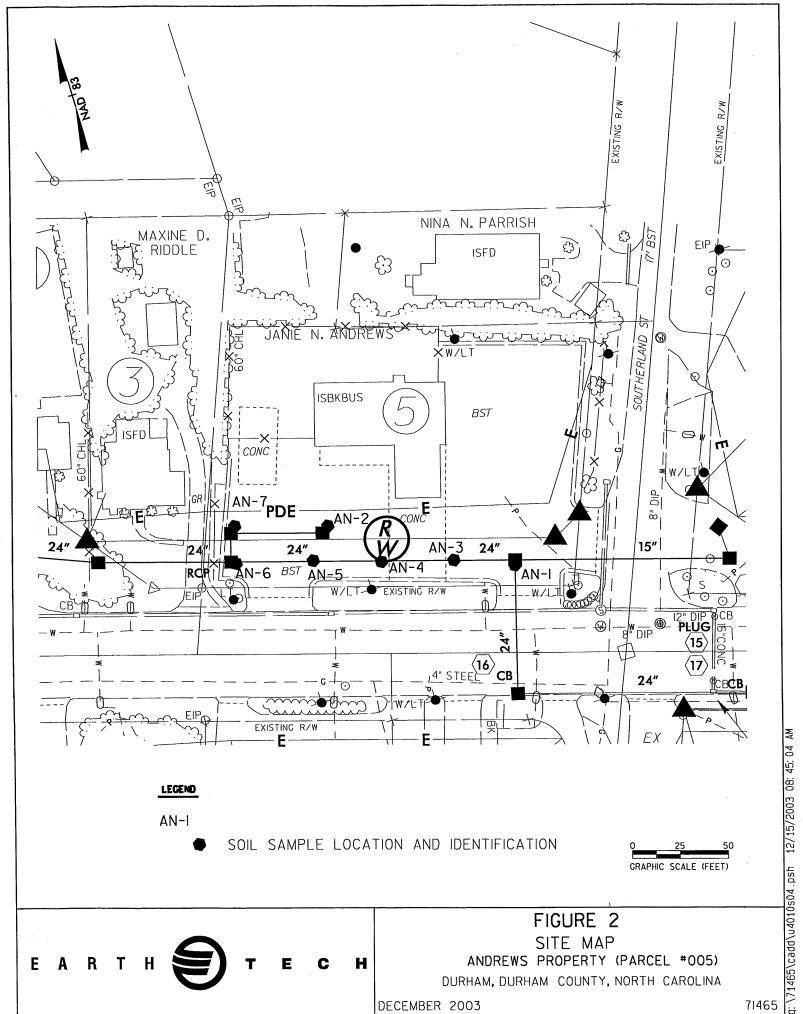


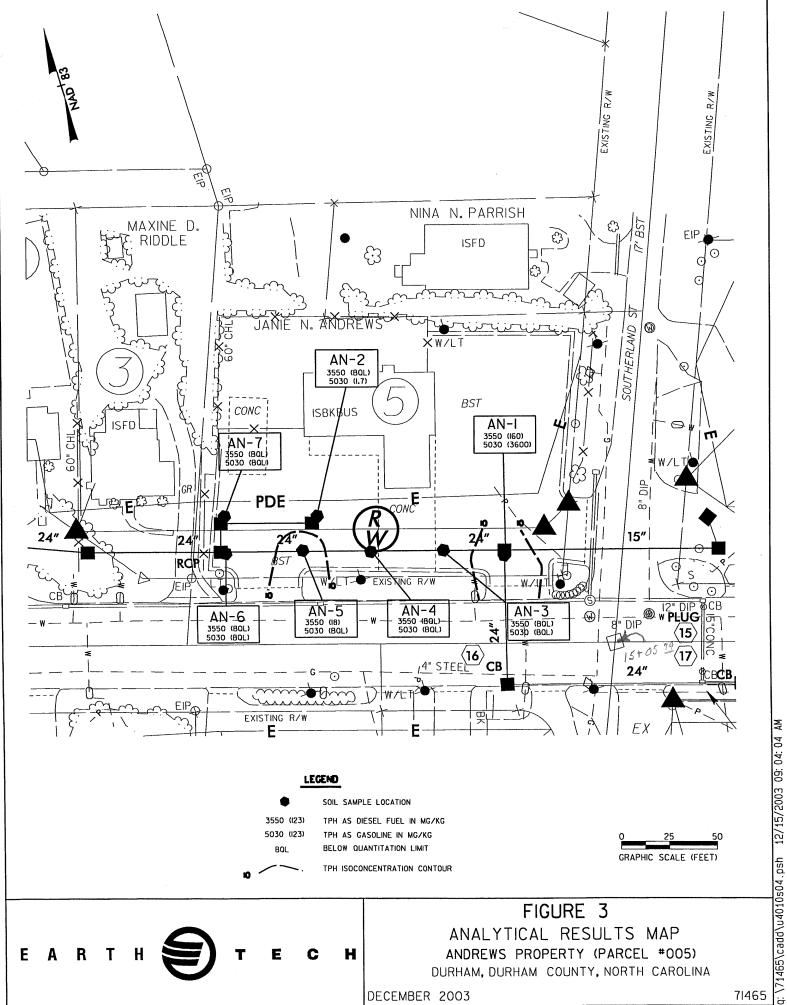


SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: SOUTHEAST DURHAM, NC (1981)



FIGURE I
LOCATION MAP
ANDREWS PROPERTY (PARCEL #005)
DURHAM, DURHAM COUNTY, NORTH CAROLINA





ANDREWS PROPERTY (PARCEL #005)

DURHAM, DURHAM COUNTY, NORTH CAROLINA

DECEMBER 2003

71465

ATTACHMENT A

PROJE	CT AND	REWS PRO	PERTY (P.	ARCEL #0	05) BORING NUMBER AN-1
CLIEN'	r NCD	OT 8.1352	402 (U-401	0)	PAGE1
PROJE	CT NUM	BER 7	1465		GPS LOCATION N35°59'27.604" W78°51'40.316"
CONTR	RACTOR	REGIO	ONAL PRO	BING	DATE 10/23/03
		GEOP			DRILLE OPPER
	_				PREPARED BY BRANSON
DEPTH	CASING BLOWS	BLOWS PER	OVA	SAMPLE DEPTH	
IN FEET	FOOT	6 INCHES	(ppm)	RANGE	FIELD CLASSIFICATION AND REMARKS
			>10.5%		4" ASPHALT/GRAVEL, MOTTLED MEDIUM BROWN, WHITE, AND TAN
					SILTY SAND, DRY, STRONG ODOR.
			>10.5%		AS ABOVE, DRY, STRONG ODOR. SUBMIT TO LABORATORY FOR
ļ					ANALYSIS.
			. 10.577		AS ABOVE, DRY, STRONG ODOR.
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			2354		AS ABOVE, DRY, STRONG ODOR.
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		REWS PRO			
		OT 8.1352		10)	PAGE
		BER			GPS LOCATION N35°59'28.003" W78°51'41.419"
CONTR	RACTOR	REGIO	NAL PRO	BING	DATE 10/23/03
EQUIP	MENT _	GEOP	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			7.2		4" ASPHALT/GRAVEL, MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT TO SILTY CLAY, DRY, NO ODOR.
			9.3		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
					EQUIPMENT REFUSAL AT 4 FEET.
5.0					EQUITMENT REPUSAL AT 4 PEET.
1					
10.0					
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PROJE	CT AND	REWS PROI	PERTY (P	ARCEL #0	05) BORING NUMBER AN-3
CLIEN	r NCD	OT 8.13524	402 (U-40	10)	PAGE
PROJE	CT NUM	BER	465		GPS LOCATION N35°59'42.201" W78°51'40.758"
CONTR	RACTOR	REGIC	NAL PRO	DBING	DATE 10/23/03
EQUIP	MENT	GEOPI	ROBE		DRILLE OPPER
	_				PREPARED BY BRANSON
				*	
DEPTH	CASING	BLOWS	OVA	SAMPLE	
IN FEET	BLOWS FOOT	PER 6 INCHES	(ppm)	DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			1.1		4" ASPHALT/GRAVEL, MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT TO SILTY CLAY, DRY, NO ODOR.
					CEATET SIET TO SIETT CEAT, DRT, NO ODOR.
			1.2		AS ABOVE, DRY, NO ODOR.
			2.4		AS ABOVE WITH CLAY INCREASING, DRY, NO ODOR.
5.0					
1			8.9		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR
					ANALYSIS.
4					BORING TERMINATED AT 8 FEET.
•					BORING TERMINATED AT 8 PEET.
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		REWS PRO			05) BORING NUMBER AN-4
CLIEN'	r NCD	OT 8.13524	402 (U-40	10)	PAGE 1
PROJE	CT NUM	BER	465		GPS LOCATION N35°59'27.802" W78°51'41.075"
CONTRACTOR REGIONAL PROBING			NAL PRO	BING	DATE 10/23/03
		GEOPI			DRILLE OPPER
]					PREPARED BY BRANSON
DEPTH	CASING	BLOWS	OVA	SAMPLE	
IN FEET	BLOWS FOOT	PER 6 INCHES	(ppm)	DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			2.5		4" ASPHALT/GRAVEL, MOTTLED BROWN, TAN, AND WHITE SILTY
			3.5		CLAY, DRY, NO ODOR.
			9.9		MEDIUM TO LIGHT CHOCOLATE DROWN OLAVEV SILT DRV NO
		$\vdash \vdash \vdash$	7.7		MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
			3.1		AS ABOVE, DRY, NO ODOR.
5.0					
					EQUIPMENT REFUSAL AT 6.5 FEET.
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•					05) BORING NUMBER AN-5
CLIEN	r NCD	OT 8.1352	402 (U-40	10)	PAGE1
PROJE	CT NUM	BER	465		GPS LOCATION N35°59'27.867" W78°51'41.495"
CONTI	RACTOR	REGIO	NAL PRO	BING	DATE 10/23/03
EQUIP:	MENT	GEOP	ROBE		DRILLE OPPER
	_				PREPARED BY BRANSON
DEPTH	CASING	BLOWS	OVA	SAMPLE	
IN FEET	BLOWS FOOT	PER 6 INCHES	(ppm)	DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			1.5		4" ASPHALT/GRAVEL, MEDIUM TO LIGHT CHOCOLATE BROWN
			1.7		CLAYEY SILT, DRY, NO ODOR.
			2.2		AG ADOME DRY NO ODOD, GUDAGE TO YARD A TODAY TOD
			3.3		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
					תיתני נינט.
					EQUIPMENT REFUSAL AT 4 FEET.
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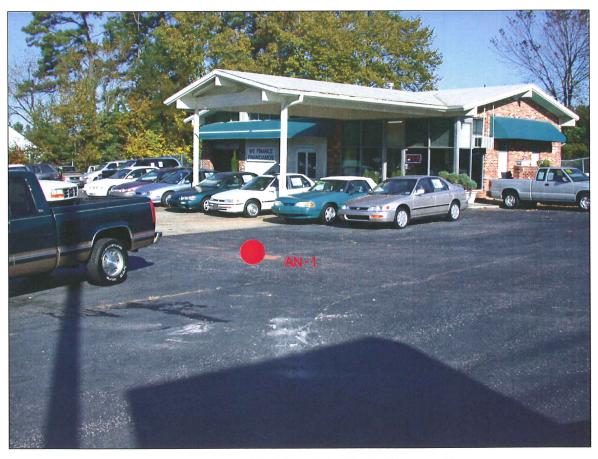
PROJE	CT AND	REWS PRO	PERTY (P	ARCEL #0	05) BORING NUMBERAN-6
CLIEN'	T NCD	OT 8.1352	402 (U-40	10)	PAGE 1
PROJE	CT NUM	BER	465		GPS LOCATION N35°59'28.015" W78°51'42.060"
CONTR	RACTOR	REGIO	ONAL PRO	DBING	DATE 10/23/03
EQUIP:	MENT _	GEOP	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN	CASING BLOWS	BLOWS PER	OVA (ppm)	SAMPLE DEPTH	
FEET	FOOT	6 INCHES	/5hm)	RANGE	FIELD CLASSIFICATION AND REMARKS
		 	5.7		4" ASPHALT/GRAVEL, MOTTLED BROWN, TAN, AND WHITE SILTY
					CLAY TO CLAYEY SILT, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
					TOK ANALISIS.
			2.7		AS ABOVE, DRY, NO ODOR.
		 			
			0.6		AS ABOVE, DRY, NO ODOR.
5.0					
			0.9		AS ABOVE, DRY, NO ODOR.
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ĺ					BORING TERMINATED AT 8 FEET.
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DDATE	CT ANDE	REWS PRO	PERTY (P	ARCEL#0	05) BORING NUMBER AN-7
-		OT 8.1352			PAGE 1
		BER 71		/	GPS LOCATION N35°59'28.153" W78°51'41.993"
		·		DRING	DATE 10/23/03
	CONTRACTOR REGIONAL PROBING EQUIPMENT GEOPROBE				DRILLE OPPER
EQUIT	WIENI _	GLOT	KODE		PREPARED BY BRANSON
					TREATMENT STATE OF THE STATE OF
DEPTH	CASING	BLOWS PER	OVA	SAMPLE DEPTH	
IN FEET	BLOWS FOOT	6 INCHES	(ppm)	RANGE	FIELD CLASSIFICATION AND REMARKS
			0.9		4" ASPHALT/GRAVEL, MOTTLED BROWN, TAN, AND WHITE SILTY
					CLAY TO CLAYEY SILT, DRY, NO ODOR.
			1.7		MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
					ODOR. SUBMIT TO LABORATOR FOR ANALISIS.
			0.2		AS ABOVE, DRY, NO ODOR.
5.0					
			0.9		AS ABOVE, DRY, NO ODOR.
,					
					BORING TERMINATED AT 8 FEET.
10.0			-		
10.0					
	<u></u>				
15.0					
20.0					

ATTACHMENT B



ANDREWS PROPERTY (PARCEL #005)



ANDREWS PROPERTY (PARCEL #005)



ANDREWS PROPERTY (PARCEL #005)



ANDREWS PROPERTY (PARCEL #005)



ANDREWS PROPERTY (PARCEL #005)



ANDREWS PROPERTY (PARCEL #005)



ANDREWS PROPERTY (PARCEL #005)

ATTACHMENT C



ase Narrative

Date: 11/6/03

Company: Earth Tech Remediation Services

Contact: Michael Branson

Address: 701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Client Project ID: Durham-Andrews

Prism Log-In Group No: 3246L8

The attached Laboratory Report contains the analytical results for the project identified above and includes Quality Control Data and a Chain-of-Custody copy.

Data qualifiers are flagged individually on each sample. Quality control statements and/or sample specific remarks are included in the sample comments section of the laboratory report for each sample affected.

Please call if you have any questions relating to this analytical report.

Data Reviewed by:

Signature:

Review Date:

Project Manager: Angele Over car

Signature:

Approval Date:

: u/7/03

Note: This report should not be reproduced, except in its entirety, without the written consent of Prism Laboratories, Inc.

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11/6/03

Page 1 of 9

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Andrews

Customer Sample ID: AN-1

Prism Sample ID: AC97941 Matrix: soil

Login Group: 3246L8

Sample Collection Date/Time: 10/23/03 09:15

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	3600	mg/kg	200	8015B/5030	10/31/03 18:11	EHT
SURR: GRO	103	%	34-128	8015B/5030	10/31/03 18:11	EHT
DILUTION FACTOR	1000	mg/kg		8015B/5030	10/31/03 18:11	EHT
CALCULATIONS BASED ON DRY WT.	89	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP. METHOD 3545 FOR DIESEL	25.03g-1mL			SW846-3545	10/29/03 12:25	CMC
DIESEL RANGE ORGANICS (DRO)	160	mg/kg	50	SW846-8015B	11/3/03 13:00	JMV
SURR: o-TERPHENYL	87	%	20-151	SW846-8015B	11/3/03 13:00	JMV
DILUTION FACTOR	5	mg/kg		SW846-8015B	11/3/03 13:00	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 2 of 9

Matrix: soil

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Andrews

Customer Sample ID: AN-2

Prism Sample ID: AC97942

Login Group: 3246L8 Sample Collection Date/Time: 10/23/03

09:30

Lab Submittal Date/Time: 10/27/03

14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	1.7	mg/kg	1.0	8015B/5030	10/29/03 23:27	EHT
SURR: GRO	80	%	34-128	8015B/5030	10/29/03 23:27	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/29/03 23:27	EHT

CALCULATIONS BASED ON DRY WT.	88	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP. METHOD 3545 FOR DIESEL	25.13g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	Less than	mg/kg	10	SW846-8015B	11/3/03 14:29	JMV
SURR: o-TERPHENYL	100	%	20-151	SW846-8015B	11/3/03 14:29	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/3/03 14:29	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 3 of 9

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Andrews

Customer Sample ID: AN-3

Prism Sample ID: AC97943 Matrix: soil

Login Group: 3246L8

Sample Collection Date/Time: 10/23/03 09:45

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/30/03 00:03	EHT
SURR: GRO	85	%	34-128	8015B/5030	10/30/03 00:03	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/30/03 00:03	EHT
CALCULATIONS BASED ON DRY WT.	84	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP. METHOD 3545 FOR DIESEL	25.20g-1mL			SW846-3545	10/29/03 12:25	CMC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	11/1/03 06:41	JMV
SURR: o-TERPHENYL	71	%	20-151	SW846-8015B	11/1/03 06:41	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/1/03 06:41	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 4 of 9

Matrix: soil

10:00

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Andrews

Customer Sample ID: AN-4

Prism Sample ID: AC97944

Login Group: 3246L8

Sample Collection Date/Time: 10/23/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/30/03 00:40	EHT
SURR: GRO	79	%	34-128	8015B/5030	10/30/03 00:40	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/30/03 00:40	EHT
CALCULATIONS BASED ON DRY WT.	86	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP. METHOD 3545 FOR DIESEL	25.29g-1mL			SW846-3545	10/29/03 12:25	CMC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	11/1/03 05:57	JMV
SURR: o-TERPHENYL	104	%	20-151	SW846-8015B	11/1/03 05:57	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/1/03 05:57	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 5 of 9

Matrix: soil

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Andrews

Customer Sample ID: AN-5

Prism Sample ID: AC97945

Login Group: 3246L8

Sample Collection Date/Time: 10/23/03 10:45

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/30/03 01:16	EHT
SURR: GRO	82	%	34-128	8015B/5030	10/30/03 01:16	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/30/03 01:16	EHT
CALCULATIONS BASED ON DRY WT.	87	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP: METHOD 3545 FOR DIESEL	25.00g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	18	mg/kg	10	SW846-8015B	11/4/03 15:14	JMV
SURR: o-TERPHENYL	98	%	20-151	SW846-8015B	11/4/03 15:14	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/4/03 15:14	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Customer Project ID: Durham-Andrews

Earth Tech Remediation Services

Mr. Michael Branson

Customer Sample ID: AN-6 Prism Sample ID: AC97946

Matrix: soil

Page 6 of 9

701 Corporate Ct. Dr. Ste. 475 Raleigh, NC 27607

Login Group: 3246L8

Sample Collection Date/Time: 10/23/03

11:00

Lab Submittal Date/Time: 10/27/03

14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/30/03 01:53	EHT
SURR: GRO	84	%	34-128	8015B/5030	10/30/03 01:53	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/30/03 01:53	EHT
CALCULATIONS BASED ON DRY WT.	83	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP. METHOD 3545 FOR DIESEL	25.08g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	11/1/03 04:27	JMV
SURR: o-TERPHENYL	98	%	20-151	SW846-8015B	11/1/03 04:27	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/1/03 04:27	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 7 of 9

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Andrews

Customer Sample ID: AN-7

Prism Sample ID: AC97947 Matrix: soil

Login Group: 3246L8

Sample Collection Date/Time: 10/23/03 11:20

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/30/03 03:06	EHT
SURR: GRO	75	%	34-128	8015B/5030	10/30/03 03:06	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/30/03 03:06	EHT
CALCULATIONS BASED ON DRY WT.	87	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP. METHOD 3545 FOR DIESEL	25.02g-1mL			SW846-3545	10/29/03 12:25	CMC
DIESEL RANGE ORGANICS (DRO)	Less than	mg/kg	10	SW846-8015B	11/3/03 13:44	JMV
SURR: o-TERPHENYL	100	%	20-151	SW846-8015B	11/3/03 13:44	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/3/03 13:44	JMV
40.						

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Customer Project ID: Durham-Andrews

Earth Tech Remediation Services

Mr. Michael Branson

Customer Sample ID: QC

701 Corporate Ct. Dr. Ste. 475

Prism Sample ID: AC97948

Matrix: n/a

Page 8 of 9

Raleigh, NC 27607

Login Group: 3246L8

Sample Collection Date/Time: 10/23/03

14:45

Lab Submittal Date/Time: 10/27/03

< 36%

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER		TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
DRO QC REPORT QC DATA FOR DRO Batch ID: SDRO-	102803				xDRO-8015/MOD	10/28/03 11:35	JMV
Spiked Sample:A	True Value mg/kg	Observed mg/kg	% Recovery	Acceptanc	e Range		
Method Blank Blank Spike Matrix Spike MS Duplicate	N/A 80.0 80.0 80.0	< 10 87.4 75.0 76.0	N/A 109 94 95	< 10 54-14 44-14 44-14	138 178 178		

GRO QC REPORT

RPD

xGRO/8015MOD 10/28/03 18:50

EHT

OC DATA FOR 8015 / GRO SOILS Batch ID: VGCE-102903

Spiked sample: AC97935

	True Value mg/kg	Observed mg/kg	% Recovery	Acceptance Range
Method Blank	N/A	< 1.0	N/A	< 1.0
LCS	2.0	1.61	81	64-124%
Matrix Spike	2.0	1.62	81	37-126%
MS Duplicate	2.0	1.55	78	37-126%
RPD			4	< 34



11/6/03

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Page 9 of 9

Customer Project ID: Durham-Andrews

Customer Sample ID: QC

Prism Sample ID: AC97948 Matrix: n/a

Login Group: 3246L8

Sample Collection Date/Time: 10/23/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST TEST REPORTING METHOD DATE/TIME
PARAMETER RESULT UNITS LIMIT REFERENCE STARTED ANALYST

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



449 Springbrook Re Full Ser

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CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic: TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

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December 18, 2003

Mr. Greg Smith
North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Reference:

Preliminary Site Assessment

Taylor Family Property (Parcel #007)

2301 Holloway Street

Durham, Durham County, North Carolina NCDOT Project 8.1352402 (U-4010)

WBS Element 35011.1.1 Earth Tech Project No. 71465

Dear Mr. Smith:

Earth Tech of North Carolina, Inc., (Earth Tech) has completed the Preliminary Site Assessment conducted at the above-referenced property. The work was performed in accordance with the Technical and Cost proposal dated October 8, 2003, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated October 13, 2003. Activities associated with the assessment consisted of collecting soil samples for laboratory analysis. The purpose of this report is to document the field activities, present the laboratory analyses, and provide recommendations regarding the property.

919.854.6259

Telephone

Facsimile

919.854.6200

Location and Description

The Taylor Family Property (Parcel #007) is located at 2301 Holloway Street (NC98) in Durham, Durham County, North Carolina (Figure 1). This location is in the northwest quadrant of the intersection of Holloway Street and Southerland Street. Based on information supplied by the NCDOT and the site visit, Earth Tech understands that the site is an active convenience store/gas station where five 12,000-gallon underground storage tanks (USTs) are in use. Four of the tanks reportedly contain gasoline and one reportedly contains diesel fuel. The proposed right-of-way does not affect the building or the USTs, but it encompasses most of the front and sides of the pump island area.

Earth Tech reviewed the North Carolina Department of Environment and Natural Resources (NCDENR) Incident Management database and Incident Number 17572 was listed for this location. According to the Incident Management Database, contamination occurred when over 5,000 gallons of gasoline were released during a tank upgrade in 1991. Because of the presence of USTs and the incident number, a Preliminary Site Assessment was requested to evaluate the soils within the right-of-way.

According to the on-site UST Permit, the USTs on the property are operated under Facility Number 0-016343. The operator and owner of the tanks are listed as follows:

Owner
The Pantry, Inc.
PO Box 1410/1801 Douglas Drive
Sanford, North Carolina 27330-1410
(282) 774-6700

Operator
Pantry 3162 (Etna 281)
2301 Holloway Street
Durham, North Carolina 27703
(919) 774-6700

Site Assessment Activities

On October 22, 2003, Earth Tech mobilized to the site to conduct a Geoprobe® direct push investigation to evaluate soil conditions within the proposed right-of-way. Continuous sampling using direct push technology (Regional Probing of Raleigh, North Carolina) resulted in generally good recovery of soil samples from the direct-push holes. Soil samples were collected and contained in 4-foot long acetate sleeves inside the direct push sampler. Each of these sleeves was divided in half for soil sample screening. Each 2-foot interval was placed in a resealable plastic bag and the bag was set aside for a sufficient amount of time to allow volatilization of organic compounds from the soil to the bag headspace. The probe of a flame ionization detector/photo ionization detector (FID/PID) was inserted into the bag and the reading was recorded. After terminating the sample hole, the soil sample from the depth interval with the highest FID/PID reading was submitted to Prism Laboratories, Inc., in Charlotte, North Carolina, using standard chain-of-custody procedures. The laboratory analyzed the soil samples for total petroleum hydrocarbons (TPH) using extraction methods 3550 (diesel fuel/fuel oil) and 5030 (gasoline).

Six direct-push holes (ET-1 through ET-6) were advanced within the right-of-way at the site to a depth of 8 feet (Figure 2 and Attachment A). These borings were placed to evaluate soil conditions in areas of a cut section and proposed drop inlet locations. Borings ET-1 through ET-4 were located in the pump island area in the proposed cut section. Borings ET-5 and ET-6 were located at proposed drop inlet locations (Attachment B). The lithology encountered by the direct-push samples generally was consistent throughout the site. The ground surface was covered with about 4 inches of asphalt and gravel. Below the surface treatment was a medium brown to mottled brown, tan, and white silty sand to sandy silt to a depth of about 4 to 7 feet. Underlying this silt/sand was a medium to chocolate brown silty clay. No groundwater was observed in any of the borings. Based on field screening, soil samples from a variety of depths were submitted for laboratory analysis, which are summarized in Table 1. Because no groundwater was encountered, no groundwater sample was collected for analysis.

Analytical Results

Based on the laboratory reports, summarized in Table 1 and presented in Attachment C, no petroleum hydrocarbon compounds were detected in any of the six soil samples collected from the site (Figure 3).

Conclusions and Recommendations

A Preliminary Site Assessment was conducted to evaluate the Taylor Family Property (Parcel #007) at 2301 Holloway Street in Durham, Durham County, North Carolina. A total of six soil borings were advanced to evaluate the soil conditions on the proposed right-of-way in areas of a cut section and proposed drop inlet locations. The laboratory reports for the six soil samples from these borings indicated that no petroleum hydrocarbons were present above the detection limits. No groundwater sample was collected for analysis to evaluate the groundwater conditions.

Earth Tech appreciates the opportunity to work with the NCDOT on this project. Because no hydrocarbon concentrations were detected, no report must be made to the North Carolina Department of Environment and Natural Resources. If you have any questions, please contact me at (919)854-6238.

Sincerely,

Michael W. Branson, P.G.

Project Manager

Attachments

c: Project File

TABLE 1

FIELD SCREENING AND ANALYTICAL RESULTS TAYLOR FAMILY PROPERTY (PARCEL #007) DURHAM, DURHAM COUNTY, NORTH CAROLINA NCDOT PROJECT NO. 8.1352402 (U-4010) EARTH TECH PROJECT NO. 71465

LOCATION	DEPTH (ft)	FID READING	SAMPLE ID	ANALYTICAL	ASSUMED TPH
		(ppm)		RESULTS	ACTION LEVEL
				(mg/kg)	(mg/kg)
ET-1	0 - 2	1.48			
	2 - 4	1.92			
	4 - 6	2.3	ET-1	3550 (BQL)	10
				5030 (BQL)	10
	6 - 8	2.1			
ET-2	0 - 2	0.82			
	2 - 4	1.07			
	4 - 6	2.14			
	6-8	11	ET-2	3550 (BQL)	10
				5030 (BQL)	10
ET-3	0 - 2	1.13			
	2 - 4	1.01			
	4 - 6	0.95			
	6 - 8	1.29	ET-3	3550 (BQL)	10
				5030 (BQL)	10
ET-4	0 - 2	1.23			
	2 - 4	1.78	ET-4	3550 (BQL)	10
				5030 (BQL)	10
	4 - 6	1.52			
	6 - 8	1.28			
ET-5	0 - 2	14.2			
	2 - 4	55	ET-5	3550 (BQL)	10
				5030 (BQL)	10
	4 - 6	25			
	6 - 8	24			
ET-6	0 - 2	48			
	2 - 4	214	ET-6	3550 (BQL)	10
				5030 (BQL)	10
	4 - 6	180			
	6 - 8	40			

3550 - High boiling point TPH fraction (diesel fuel/fuel oil).

5030 - Low boiling point TPH fraction (gasoline).

BQL - Below quantitation limit.

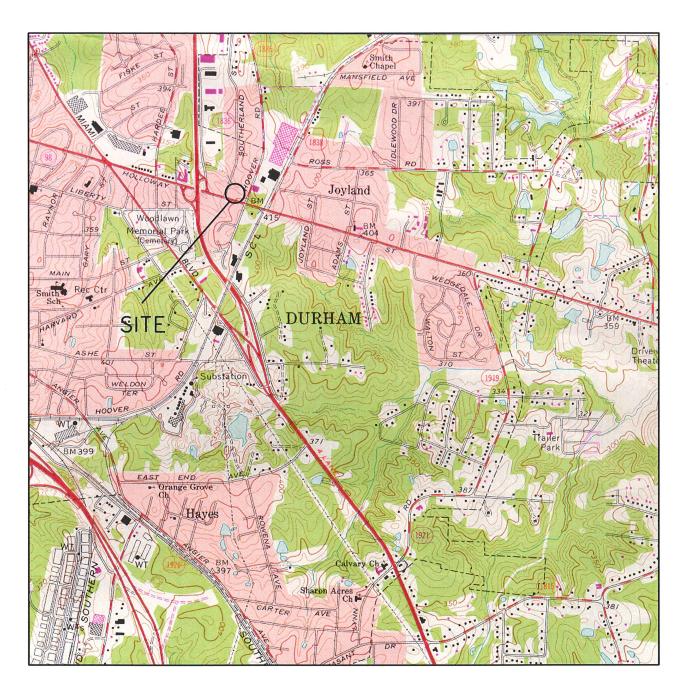
ppm - parts per million.

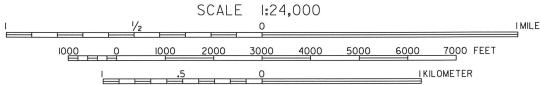
mg/kg - milligrams per kilogram.

BOLD area indicates that concentration is above the assumed action level.

FIGURES





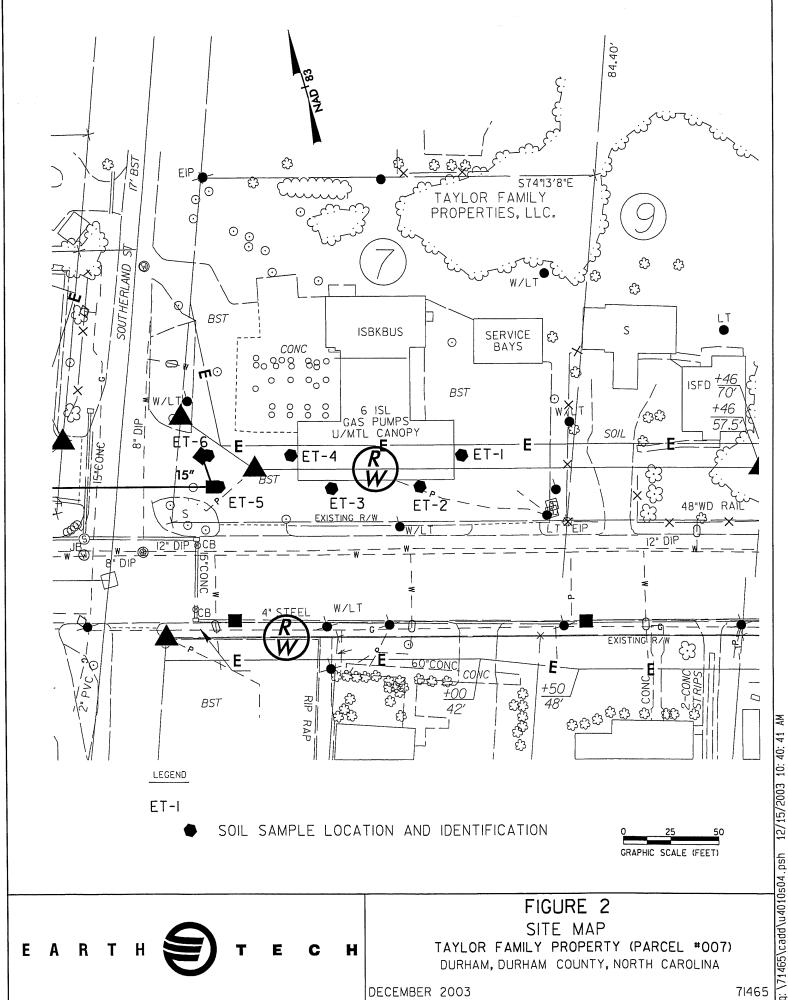


SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: SOUTHEAST DURHAM, NC (1981)



FIGURE I Location map

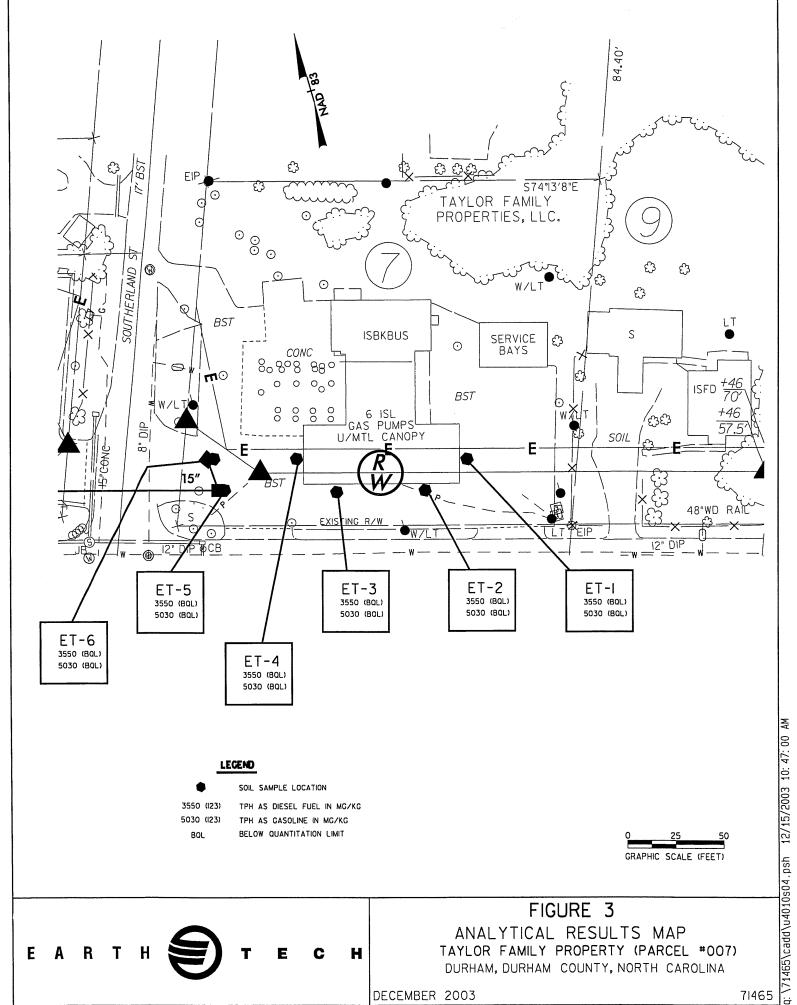
TAYLOR FAMILY PROPERTY (PARCEL #007) DURHAM, DURHAM COUNTY, NORTH CAROLINA



TAYLOR FAMILY PROPERTY (PARCEL #007) DURHAM, DURHAM COUNTY, NORTH CAROLINA

DECEMBER 2003

71465





TAYLOR FAMILY PROPERTY (PARCEL #007) DURHAM, DURHAM COUNTY, NORTH CAROLINA

DECEMBER 2003

71465

ATTACHMENT A

PROJE	CT TAYI	OR FAMIL	Y PROPE	RTY (PAR	CEL #007) BORING NUMBER ET-1					
CLIEN'	T NCD	OT 8.1352	402 (U-40	10)	PAGE 1					
PROJE	CT NUM	BER 7	1465		GPS LOCATION N35°59'27.020" W78°51'37.488"					
CONTI	RACTOR	REGIO	ONAL PRO	BING	DATE 10/22/03					
EQUIP	MENT _	GEOP	ROBE		DRILLE OPPER					
					PREPARED BY BRANSON					
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)							
/ - /			1.48		3" ASPHALT/GRAVEL, MEDIUM BROWN SILTY SAND/SANDY SILT, DRY, NO ODOR.					
			1.92		AS ABOVE, DRY, NO ODOR.					
5.0			2.3		MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT, DRY, NO ODOR. SUBMIT TO LABOROATORY FOR ANALYSIS.					
			2.1		AS ABOVE, DRY, NO ODOR.					
					BORING TERMINATED AT 8 FEET.					
10.0										
15.0										

PROJE	CT TAYL	OR FAMIL	LY PROPE	RTY (PAR	CEL #007) BORING NUMBER ET-2
CLIEN	T NCD	OT 8.1352	402 (U-40	10)	PAGE 1
PROJE	CT NUM	BER 7	1465		GPS LOCATION N35°59'27.050" W78°51'37.904"
		REGIO		BING	DATE 10/22/03
	MENT		ROBE		DRILLE OPPER
EQUI	- IVIENT	0201	ROBE		
					PREPARED BY BRANSON
DEPTH IN	CASING BLOWS	BLOWS PER	OVA (ppm)	SAMPLE DEPTH	EIELD CLASSIEICATION AND DEMARKS
FEET	FOOT	6 INCHES		RANGE	FIELD CLASSIFICATION AND REMARKS
			0.82		4" ASPHALT/GRAVEL, MEDIUM BROWN TO TAN SILT/CLAY, DRY, NO
					ODOR.
			1.07		AS ABOVE, DRY, NO ODOR.
					Above, DR1, No obok.
			2.14		AS ABOVE, DRY, NO ODOR.
5.0					
			11		MEDIUM TO LICHT CHOCOLATE DROWN OF T/CAND DRY NO ODOR
			**		MEDIUM TO LIGHT CHOCOLATE BROWN SILT/SAND, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
					SODWIT TO EADORATOR T TOR ANALISIS.
					BORING TERMINATED AT 8 FEET.
					·
10.0					
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PROJE	CT TAYI	OR FAMIL	Y PROPE	RTY (PAR	CEL #007) BORING NUMBER ET-3
CLIEN	T NCD	OT 8.1352	402 (U-40	10)	PAGE 1
PROJE	CT NUM	BER 7	1465		GPS LOCATION N35°59'27.115" W78°51'38.204"
CONTI	RACTOR	REGIO	ONAL PRO	BING	DATE 10/22/03
EQUIP	MENT _	GEOP	ROBE		DRILLE OPPER
	_				PREPARED BY BRANSON
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			1.13		4" ASPHALT/GRAVEL, MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT TO SILTY CLAY WITH SOME SAND, DRY, NO ODOR.
			1.01		AS ABOVE, DRY, NO ODOR.
			0.95		AS ABOVE, DRY, NO ODOR.
5.0					
			1.29		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
					BORING TERMINATED AT 8 FEET.
10.0					
15.0					
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		†			

20.0

PROJE	CT TAYL	OR FAMIL	Y PROPE	RTY (PAR	CEL #007) BORING NUMBER ET-4
CLIEN	T NCD	OT 8.1352	402 (U-40	10)	PAGE 1
PROJE	CT NUM	BER	1465		GPS LOCATION N35°59'27.181" W78°51'38.512"
CONTRACTOR REGIONAL PROBING DATE 10/22/03					DATE 10/22/03
EQUIP	MENT _	GEOP	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			1.23		4" ASPHALT/GRAVEL, MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT TO SILTY CLAY WITH SOME SAND, DRY, NO ODOR.
			1.78		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
5.0			1.52		AS ABOVE, DRY, NO ODOR.
			1.28		AS ABOVE, DRY, NO ODOR.
					BORING TERMINATED AT 8 FEET.
10.0					
15.0					

PROJE	CT TAYI	OR FAMIL	Y PROPE	RTY (PAR	CEL #007) BORING NUMBER ET-5
		OT 8.1352			PAGE 1
PROJE	CT NUM	IBER 7	1465		GPS LOCATION N35°59'27.243" W78°51'39.007"
CONTR	RACTOR	REGIO	ONAL PRO	DBING	DATE 10/22/03
EQUIP	MENT _	GEOP	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			14.20		4" ASPHALT/GRAVEL, MOTTLED BROWN, TAN, AND WHITE SILTY SAND, DRY, SLIGHT ODOR.
	-		55		AS ABOVE, DRY, MODERATE ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
			2.5		AS ABOVE, DRY, MODERATE ODOR.
5.0			25		AS ABOVE, DRI, WODERATE ODOR.
			24		AS ABOVE TO 7 FEET, BECOMES MEDIUM TO LIGHT CHOCOLATE BROWN SILT CLAY, DRY, SLIGHT ODOR
					BORING TERMINATED AT 8 FEET.
10.0					
15.0					

20.0

PROJE	CT TAYL	OR FAMIL	Y PROPE	RTY (PAR	CEL #007) BORING NUMBER ET-6
CLIEN	r NCD	OT 8.1352	402 (U-40	10)	PAGE1
PROJE	CT NUM	BER	1465		GPS LOCATION N35°59'27.432" W78°51'38.987"
CONTI	RACTOR	REGIO	ONAL PRO	DBING	DATE 10/22/03
EQUIP	MENT _	GEOP	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			48		4" ASPHALT/GRAVEL, MOTTLED BROWN, TAN, AND WHITE SILTY SAND, DRY, NO ODOR.
			214		AS ABOVE, DRY, SLIGHT ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
5.0			180		AS ABOVE, DRY, SLIGHT ODOR.
			40		AS ABOVE TO 7 FEET, BECOMES MEDIUM TO LIGHT CHOCOLATE
					BROWN SILT CLAY, DRY, NO ODOR
					BORING TERMINATED AT 8 FEET.
10.0					
15.0					

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ATTACHMENT B



TAYLOR FAMILY PROPERTY (PARCEL #007)



TAYLOR FAMILY PROPERTY (PARCEL #007) ALONG EASEMENT LINE



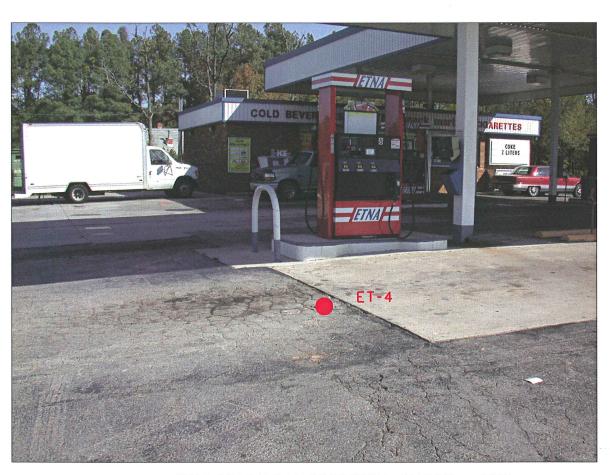
TAYLOR FAMILY PROPERTY (PARCEL #007)



TAYLOR FAMILY PROPERTY (PARCEL #007)



TAYLOR FAMILY PROPERTY (PARCEL #007)



TAYLOR FAMILY PROPERTY (PARCEL #007)



TAYLOR FAMILY PROPERTY (PARCEL #007)

ATTACHMENT C

PRISM LABORATORIES, INC. CHARLOTTE, NC 1-800-529-6364 Full Service Analytical & Environmental Solutions

Case Narrative

Date: 11/6/03

Company: Earth Tech Remediation Services

Contact: Michael Branson

Address: 701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Client Project ID: Durham-Taylor Prism Log-In Group No: 3243L7

The attached Laboratory Report contains the analytical results for the project identified above and includes Quality Control Data and a Chain-of-Custody copy.

Data qualifiers are flagged individually on each sample. Quality control statements and/or sample specific remarks are included in the sample comments section of the laboratory report for each sample affected.

Please call if you have any questions relating to this analytical report.

Data Reviewed by:

Signature:

Review Date:

Project Manager:

Signature

Approval Date:

Note: This report should not be reproduced, except in its entirety, without the written consent of Prism Laboratories, Inc.

F:\common\casenarrative



11/6/03

Customer Project ID: Durham-Taylor

Earth Tech Remediation Services

Mr. Michael Branson

Customer Sample ID: ET-1

Matrix: soil

701 Corporate Ct. Dr. Ste. 475

Prism Sample ID: AC97919 Login Group: 3243L7

Page 1 of 8

Raleigh, NC 27607

Sample Collection Date/Time: 10/22/03

10:15

Lab Submittal Date/Time: 10/27/03

14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/27/03 22:50	EHT
SURR: GRO	95	%	34-128	8015B/5030	10/27/03 22:50	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/27/03 22:50	EHT
CALCULATIONS BASED ON DRY WT.	86	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.04g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/28/03 19:20	JMV
SURR: o-TERPHENYL	104	%	20-151	SW846-8015B	10/28/03 19:20	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/28/03 19:20	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 2 of 8

10:30

14:45

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Taylor

Customer Sample ID: ET-2

Prism Sample ID: AC97920 Matrix: soil

Login Group: 3243L7

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
					and the second s	
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	. 8015B/5030	10/27/03 23:27	EHT
SURR: GRO	76	%	34-128	8015B/5030	10/27/03 23:27	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/27/03 23:27	EHT
CALCULATIONS BASED ON DRY WT.	87	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.05g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/29/03 02:07	JMV
SURR: o-TERPHENYL	78	%	20-151	SW846-8015B	10/29/03 02:07	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/29/03 02:07	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 3 of 8

Matrix: soil

10:45

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Taylor

Customer Sample ID: ET-3

Prism Sample ID: AC97921

Login Group: 3243L7

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/28/03 00:03	EHT
SURR: GRO	82	%	34-128	8015B/5030	10/28/03 00:03	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/28/03 00:03	EHT
CALCULATIONS BASED ON DRY WT.	86	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.02g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/29/03 04:20	JMV
SURR: o-TERPHENYL	77	%	20-151	SW846-8015B	10/29/03 04:20	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/29/03 04:20	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



Page 4 of 8

11/6/03

Earth Tech Remediation Services

701 Corporate Ct. Dr. Ste. 475

Mr. Michael Branson

Raleigh, NC 27607

Customer Project ID: Durham-Taylor

Customer Sample ID: ET-4

Prism Sample ID: AC97922 Matrix: soil

Login Group: 3243L7

Sample Collection Date/Time: 10/22/03 11:00 Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
The Control of the Co			***************************************	THE R. LEWIS CO., LANSING CO., LANSING, MICH. SHOWS AND ADDRESS OF THE PARTY OF THE		
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/28/03 00:40	EHT
SURR: GRO	79	%	34-128	8015B/5030	10/28/03 00:40	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/28/03 00:40	EHT
CALCULATIONS BASED ON DRY WT.	84	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.01g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/29/03 03:36	JMV
SURR: o-TERPHENYL	82	%	20-151	SW846-8015B	10/29/03 03:36	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/29/03 03:36	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 5 of 8

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Taylor

Customer Sample ID: ET-5

Prism Sample ID: AC97923

Matrix: soil

11:10

Login Group: 3243L7

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/28/03 01:16	EHT
SURR: GRO	93	%	34-128	8015B/5030	10/28/03 01:16	EHT
DILUTION FACTOR	1	mg/kg	•	8015B/5030	10/28/03 01:16	EHT
CALCULATIONS BASED ON DRY WT.	89	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.09g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/29/03 02:52	JMV
SURR: o-TERPHENYL	85	%	20-151	SW846-8015B	10/29/03 02:52	JMV
DILUTION FACTOR	1	mg/kg .		SW846-8015B	10/29/03 02:52	JMV
44444						

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Customer Project ID: Durham-Taylor

Earth Tech Remediation Services

Mr. Michael Branson

Customer Sample ID: ET-6 Prism Sample ID: AC97924

701 Corporate Ct. Dr. Ste. 475

Login Group: 3243L7

Matrix: soil

Page 6 of 8

Raleigh, NC 27607

11:30

Sample Collection Date/Time: 10/22/03

14:45

Lab Submittal Date/Time: 10/27/03 The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO.)	Not detected	mg/kg	1.0	8015B/5030	10/30/03 21:47	EHT
SURR: GRO	83 [,]	%	34-128	8015B/5030	10/30/03 21:47	EHT
DILUTION FACTOR	1 :	mg/kg		8015B/5030	10/30/03 21:47	EHT
CALCULATIONS BASED ON DRY WT.	88	% DRY WT.	0.01	SM 2540 G	10/30/03 10:20	CWC
PREP. METHOD 3545 FOR DIESEL	25.07g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	11/1/03 08:10	JMV
SURR: o-TERPHENYL	75	%	20-151	SW846-8015B	11/1/03 08:10	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/1/03 08:10	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 7 of 8

Earth Tech Remediation Services

Customer Project ID: Durham-Taylor

Mr. Michael Branson

Customer Sample ID: QC

701 Corporate Ct. Dr. Ste. 475

Prism Sample ID: AC98152

Matrix: n/a

Raleigh, NC 27607

Login Group: 3243L7

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER		TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
DRO QC REPORT QC DATA FOR DRO Batch ID: SDRO-	-103003				xDRO-8015/MOD	10/31/03 02:17	JMV
Spiked Sample:		Observed mg/kg	% Recovery	Acceptanc	e Range		
Method Blank Blank Spike Matrix Spike MS Duplicate RPD	N/A 80.0 80.0 80.0	< 10 52.3 56.0 57.0	N/A 65 70 72 2	< 10 54-14 44-14 44-14 < 36	3% 7% 7%		
GRO QC REPORT			, , ,		xGRO/8015MOD	10/25/03 19:08	EHT

QC DATA FOR 8015 / GRO SOILS Batch ID: V3400-102703 Spiked sample: AC97913

	True Value mg/kg	Observed mg/kg	% Recovery	Acceptance Range
Method Blank LCS Matrix Spike MS Duplicate RPD	N/A 2.0 2.0 2.0	< 1.0 1.76 1.64 1.59	N/A 88 82 80 3	< 1.0 64-124% 37-126% 37-126% < 34

NC Certification No. 402 - SC Certification No. 99012 - NC Drinking Water Cert. No. 37735 - FL Certification No. E87519

449 Springbrook Road ▲ P.O. Box 240543 ▲ Charlotte, NC 28224-0543 Phone: 704 / 529-6364 A Toll Free Number: 1-800 / 529-6364 A Fax: 704 / 525-0409



Page 8 of 8

Matrix: n/a

11/6/03

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Taylor

Customer Sample ID: QC

Prism Sample ID: AC98152

Login Group: 3243L7

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

DATE/TIME TEST **TEST** REPORTING **METHOD** LIMIT STARTED REFERENCE RESULT UNITS **ANALYST** PARAMETER

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



PAGE ___ OF

CHAIN OF CUSTODY RECORD QUOTE # TO ENSURE PROPER BILLING:

Samples INTACT upon arrival?

LAB USE ONLY

YES

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OPIES

*CONTAINER TYPL CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VUA = Volatile Organics Analysis (Zero Head Space)

December 18, 2003

Mr. Greg Smith
North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Reference:

Preliminary Site Assessment

M.M. Fowler, Inc., Property (Parcel #016)

2406 Holloway Street

Durham, Durham County, North Carolina NCDOT Project 8.1352402 (U-4010)

WBS Element 35011.1.1 Earth Tech Project No. 71465

Dear Mr. Smith:

Earth Tech of North Carolina, Inc., (Earth Tech) has completed the Preliminary Site Assessment conducted at the above-referenced property. The work was performed in accordance with the Technical and Cost proposal dated October 8, 2003, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated October 13, 2003. Activities associated with the assessment consisted of collecting soil samples for laboratory analysis. The purpose of this report is to document the field activities, present the laboratory analyses, and provide recommendations regarding the property.

Location and Description

The M.M. Fowler, Inc., Property (Parcel #016) is located at \$\alpha\$2406 Holloway Street (NC98) in Durham, Durham County, North Carolina (Figure 1). This location is in the northeast quadrant of the intersection of Holloway Street and Hoover Road. Based on information supplied by the NCDOT and the site visit, Earth Tech understands that the site is an active convenience store/gas station where five underground storage tanks (USTs) are reported to be present. Three 10,000-gallon USTs contain gasoline, one 10,000-gallon UST contains diesel fuel, and one 6,000-gallon UST contains kerosene. The property is currently in use as a restaurant. The proposed right-of-way does not affect the building or the former UST area, but it encompasses the front of the pump island area.

Earth Tech reviewed the North Carolina Department of Environment and Natural Resources (NCDENR) Incident Management database and Incident Number 26164 was listed for this location. According to the Incident Management Database, the incident was assigned when soil sampling indicated a TPH concentration of 180 mg/kg in the soil. According to the database, the incident was closed out in November 2003. Because of the presence of USTs and the incident number, a Preliminary Site Assessment was requested to evaluate the soils within the right-of-way.

Telephone

919.854.6200

Facsimile

919.854.6259

According to the UST registration database, the USTs on the property were operated under Facility Number 0-002268. The operator and owner of the tanks are listed as follows:

Owner
M.M. Fowler, Inc.
4220 Neal Road
Durham, North Carolina 27705-2322
(919) 309-2925

Operator
Joyland BP
2406 Holloway Street
Durham, North Carolina 27703
(919) 309-2925

Site Assessment Activities

On October 22, 2003, Earth Tech mobilized to the site to conduct a Geoprobe[®] direct push investigation to evaluate soil conditions within the proposed right-of-way. Continuous sampling using direct push technology (Regional Probing of Raleigh, North Carolina) resulted in generally good recovery of soil samples from the direct-push holes. Soil samples were collected and contained in 4-foot long acetate sleeves inside the direct push sampler. Each of these sleeves was divided in half for soil sample screening. Each 2-foot interval was placed in a resealable plastic bag and the bag was set aside for a sufficient amount of time to allow volatilization of organic compounds from the soil to the bag headspace. The probe of a flame ionization detector/photo ionization detector (FID/PID) was inserted into the bag and the reading was recorded. After terminating the sample hole, the soil sample from the depth interval with the highest FID/PID reading was submitted to Prism Laboratories, Inc., in Charlotte, North Carolina, using standard chain-of-custody procedures. The laboratory analyzed the soil samples for total petroleum hydrocarbons (TPH) using extraction methods 3550 (diesel fuel/fuel oil) and 5030 (gasoline).

Nine direct-push holes (MF-1 through MF-9) were advanced within the right-of-way at the site to depths ranging from 6 to 8 feet (Figure 2 and Attachment A). These borings were placed to evaluate soil conditions in a cut section and proposed drop inlet locations on the property. Borings MF-4 and MF-6 were located to evaluate proposed drop inlet locations. Borings MF-1 through MF-3 and MF-5 were located along Holloway Street to evaluate the soil conditions in a proposed cut section. Borings MF-7 through MF-9 were located to evaluate soil conditions near the USTs along Hoover Road (Attachment B). The lithology encountered by the direct-push samples generally was consistent throughout the site. The ground surface was covered with about 4 inches of concrete or topsoil. Below the surface treatment was a medium brown silty sand or medium to chocolate brown silty clay. No groundwater was observed in any of the borings. Boring MF-6 was terminated at equipment refusal at a depth 6.5 feet and boring MF-7 at a depth of 6 feet. All other borings were terminated at a depth of 8 feet, the maximum depth of the proposed drainage lines. Based on field screening, soil samples from a variety of

depths were submitted for laboratory analysis, which are summarized in Table 1. Because no groundwater was encountered, no groundwater sample was collected for analysis.

Analytical Results

Based on the laboratory reports, summarized in Table 1 and presented in Attachment C, petroleum hydrocarbon compounds were detected in six of the nine soil samples collected from the site (Figure 3). Total petroleum hydrocarbons (TPH) concentrations identified as diesel fuel were detected in soil sample MF-2 at a concentration of 40 milligrams per kilogram (mg/kg), in soil sample MF-4 at a concentration of 15 mg/kg, in soil sample MF-7 at a concentration of 17 mg/kg, in soil sample MF-8 at a concentration of 22 mg/kg, and in soil sample MF-9 at a concentration of 19 mg/kg. TPH concentrations identified as gasoline were detected in soil sample MF-2 at a concentration of 580 mg/kg, in soil sample MF-3 at a concentration of 570 mg/kg, in soil sample MF-7 at a concentration of 12 mg/kg, in soil sample MF-8 at a concentration of 200 mg/kg, and in soil sample MF-9 at a concentration of 1.8 mg/kg. No other soil sample contained detectable TPH concentrations. According to the North Carolina Underground Storage Tank Section's Underground Storage Tank Closure Policy dated August 24, 1998, the action level for TPH analyses is 10 mg/kg for both gasoline and diesel fuel. However, that agency's "Guidelines for Assessment and Corrective Action," dated April, 2001, does not allow for use of TPH analyses for confirmation of the extent of petroleum contamination or its cleanup. As a result, while TPH concentrations are no longer applicable in confirming if soil contamination is present, this analysis is a legitimate screening tool. Based on the TPH action level for UST closures, the assumed action level is 10 mg/kg. The soil sample from borings MF-2, MF-3, MF-4, MF-7, MF-8, and MF-9 contained TPH concentrations above the 10 mg/kg assumed action level.

Conclusions and Recommendations

A Preliminary Site Assessment was conducted to evaluate the M.M. Fowler, Inc., Property (Parcel #016) at 2406 Holloway Street in Durham, Durham County, North Carolina. A total of nine soil borings were advanced to evaluate the soil conditions in a cut section on the proposed right-of-way and at proposed drop inlet locations at the property. The laboratory reports of six of the nine soil samples from these borings suggest that diesel fuel or gasoline is present above the detection limits. No groundwater sample was collected for analysis to evaluate the groundwater conditions.

To evaluate the volume of soil requiring possible remediation, an isoconcentration map for TPH concentrations above 10 mg/kg (Figure 3) was constructed using the analytical data. The volume of potentially contaminated soil for this site was estimated based on the 10-mg/kg isoconcentration contours. From this map, two areas of potential contamination are present, one in front of the pump islands along Holloway Street and one along Hoover Road at the USTs.

The analytical results of the soil sample from borings MF-2, MF-3, and MF-4 indicate a concentration of 580 mg/kg gasoline, 570 mg/kg gasoline, and 15 mg/kg diesel fuel, respectively. The soil samples from borings MF-1 and MF-5 contained no detectable TPH concentrations. For the purpose of estimating the volume of contaminated soil in the right-of-way, Earth Tech has assumed (from the field screening data in Table 1) an average contaminated soil thickness of 4 feet with a geometry as shown on Figure 3. Based on a contamination thickness of 4 feet with a width of 15 feet and a length of 115 feet, a volume of approximately 255 cubic yards of contaminated soil is estimated on the right-of-way in this area.

The analytical results of the soil sample from borings MF-7, MF-8, and MF-9 indicate a concentration of 17 mg/kg diesel fuel, 200 mg/kg gasoline, and 19 mg/kg diesel fuel, respectively. The soil sample from boring MF-6 contained no detectable TPH concentrations. No borings were advanced south of MF-9 because of the property line. For the purpose of estimating the volume of contaminated soil in the right-of-way, Earth Tech has assumed (from the field screening data in Table 1) an average contaminated soil thickness of 6 feet with a geometry as shown on Figure 3. Based on a contamination thickness of 6 feet with a width of 10 feet and a length of 45 feet, a volume of approximately 100 cubic yards of contaminated soil is estimated on the right-of-way in this area.

The volumes estimated above were calculated from TPH analytical data, which is no longer valid for remediation of sites reported after January 2, 1998. After this date, MADEP EPH/VPH and EPA Method 8260/8270 analyses will likely be required to confirm cleanup. However, these analyses do not correlate exactly with TPH data and, as a result, the actual volume of contaminated soil may be significantly higher or lower. Earth Tech recommends that a copy of this report be submitted to the Division of Waste Management, UST Section, in the Raleigh Regional Office. If you have any questions, please contact me at (919)854-6238.

Sincerely,

Michael W. Branson, P.G.

Project Manager

Attachments

c: Project File

TABLE 1

FIELD SCREENING AND ANALYTICAL RESULTS M.M. FOWLER, INC., PROPERTY (PARCEL #016) DURHAM, DURHAM COUNTY, NORTH CAROLINA NCDOT PROJECT NO. 8.1352402 (U-4010) EARTH TECH PROJECT NO. 71465

LOCATION	DEPTH (ft)	FID READING	SAMPLE ID	ANALYTICAL	ASSUMED TPH
	\ \ \ \	(ppm)		RESULTS	ACTION LEVEL
				(mg/kg)	(mg/kg)
MF-1	0 - 2	0.26			
	2 - 4	0.41			
	4-6	0.55			
	6 - 8	3.42	MF-1	3550 (BQL)	10
				5030 (BQL)	10
MF-2	0 - 2	0.1			
	2 - 4	691			
	4 - 6	1471	MF-2	3550 (40)	10
				5030 (580)	10
	6 - 8	1393			
MF-3	0 - 2	1.23			
	2 - 4	1.54			
	4 - 6	432			
	6 - 8	1578	MF-3	3550 (BQL)	10
				5030 (570)	10
MF-4	0 - 2	15.6	MF-4	3550 (15)	10
				5030 (BQL)	10
	2 - 4	14.2			
	4 - 6	4.19			
	6 - 8	2.95			
MF-5	0 - 2	1.7			
	2 - 4	2.9			
	4 - 6	27	MF-5	3550 (BQL)	10
				5030 (BQL)	10
MF-6	0 - 2	2.2			
	2 - 4	2.6			
	4 - 6	2.7	MF-6	3550 (BQL)	10
				5030 (BQL)	10
MF-7	0 - 2	78			
	2 - 4	7622	MF-7	3550 (17)	10
				5030 (12)	10
	4 - 6	97			
MF-8	0 - 2	81			
	2 - 4	5.90%	MF-8	3550 (22)	10
				5030 (200)	10
	4 - 6	4025			
	6 - 8	5679			
MF-9	0 - 2	2872			
	2 - 4	9258	MF9	3550 (19) 5030 (1.8)	10 10
	4 - 6	387		5050 (1.6)	10
	6 - 8	687			

^{3550 -} High boiling point TPH fraction (diesel fuel/fuel oil).

BOLD area indicates that concentration is above the assumed action level.

FID readings above 10,000 ppm expressed as percentage.

^{5030 -} Low boiling point TPH fraction (gasoline).

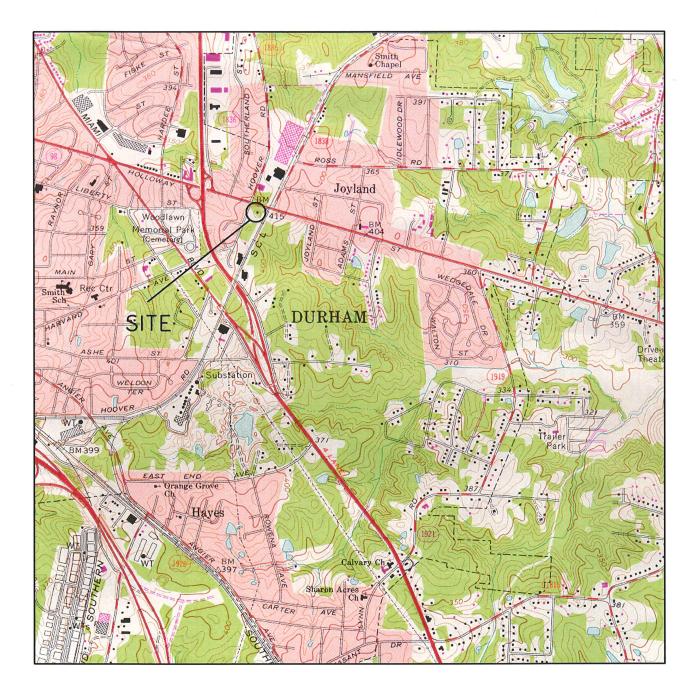
BQL - Below quantitation limit.

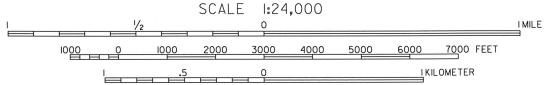
ppm - parts per million.

mg/kg - milligrams per kilogram.

FIGURES







SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: SOUTHEAST DURHAM, NC (1981)



FIGURE I LOCATION MAP

M.M. FOWLER, LLC, PROPERTY (PARCEL #016) DURHAM, DURHAM COUNTY, NORTH CAROLINA

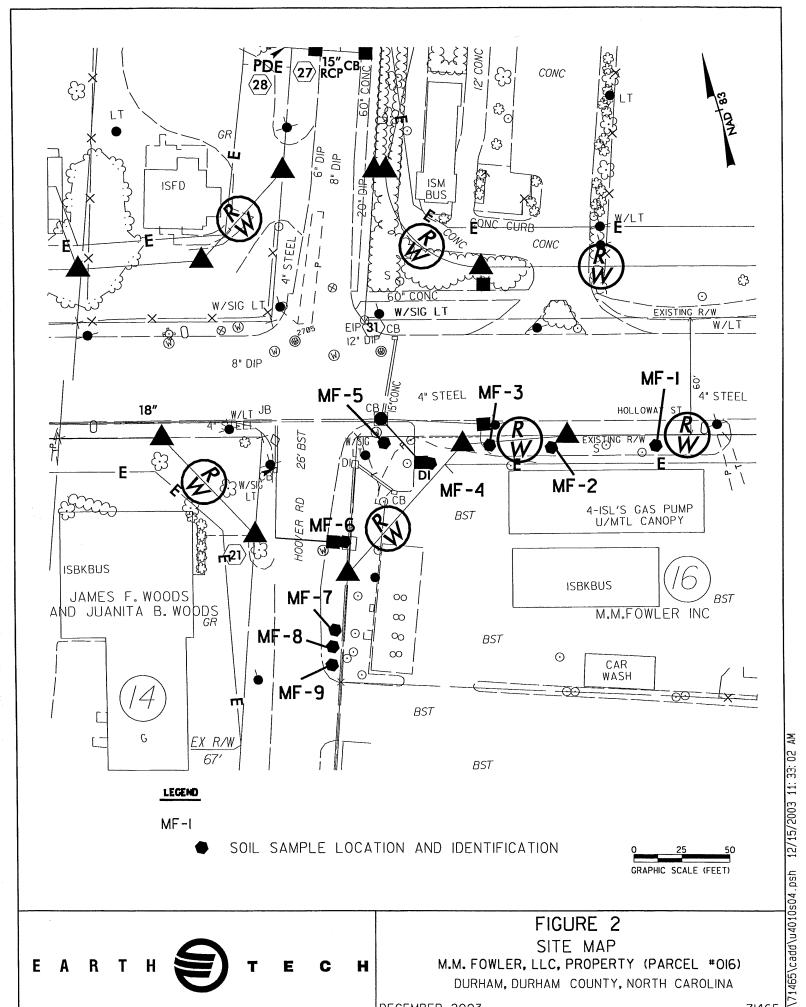
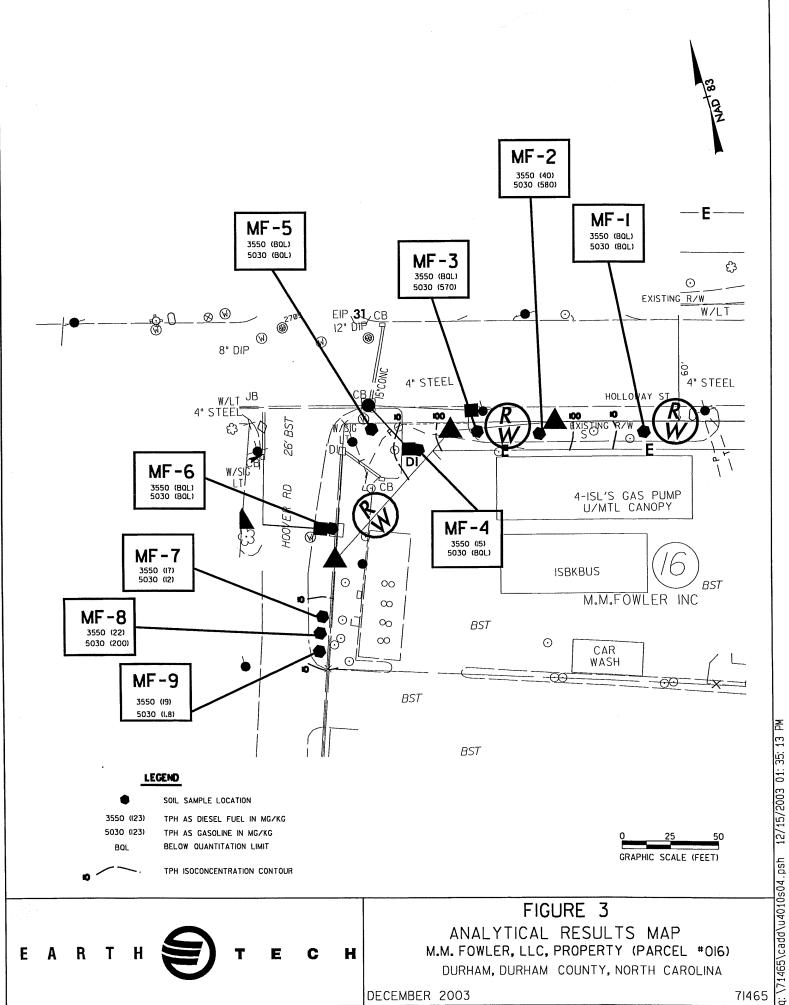




FIGURE 2 SITE MAP M.M. FOWLER, LLC, PROPERTY (PARCEL #016) DURHAM, DURHAM COUNTY, NORTH CAROLINA

DECEMBER 2003

71465



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ANALYTICAL RESULTS MAP M.M. FOWLER, LLC, PROPERTY (PARCEL #016) DURHAM, DURHAM COUNTY, NORTH CAROLINA

DECEMBER 2003

71465

ATTACHMENT A

					ARCEL #016) BORING NUMBER MF-1
CLIENT	r <u>NCD</u>	OT 8.13524	402 (U-401	.0)	PAGE 1
		BER			GPS LOCATION N35°59'24.884" W78°51'32.469"
CONTR	CONTRACTOR REGIONAL PROBING				DATE 10/22/03
EQUIP	MENT _	GEOPI	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN	CASING BLOWS	BLOWS PER	OVA (ppm)	SAMPLE DEPTH	FIELD CLASSIFICATION AND REMARKS
FEET	FOOT	6 INCHES		RANGE	
			0.26		2" TOPSOIL, MEDIUM BROWN SILTY SAND TO SANDY SILT, DRY, NO
					ODOR.
			0.41		AS ABOVE, DRY, NO ODOR.
			0.55		AS ABOVE WITH CLAY INCREASING, DRY, NO ODOR.
5.0					
			3.42		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR
					ANALYSIS.
	_				
					BORING TERMINATED AT 8 FEET.
10.0					
10.0					
15.0					
		1			
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			1		
20.0	l]		

PROJE	СТ М. М.	FOWLER,	INC., PRO	OPERTY (F	PARCEL #016) BORING NUMBER MF-2
CLIEN	T NCD	OT 8.1352	402 (U-40	10)	PAGE 1
		BER 71			GPS LOCATION N35°59'25.013" W78°51'32.957"
		REGIO		DBING	DATE 10/22/03
		GEOP			DRILLE OPPER
					PREPARED BY BRANSON
					I REI ARED DI
DEPTH	CASING	BLOWS	OVA	SAMPLE	
IN FEET	BLOWS	PER 6 INCHES	(ppm)	DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
FEET	1001	UNICIALS		, and a	
			0.10		2" TOPSOIL, MEDIUM BROWN COARSE SAND, DRY, NO ODOR.
			691		MEDIUM BROWN SILTY CLAY TO CLAYEY SILT, DRY, STRONG ODOR.
	<u> </u>				
1			1471		AS ABOVE, DRY, MODERATE ODOR. SUBMIT TO LABORATORY FOR
5.0					ANALYSIS.
			1393		AS ADOME DRY MODERATE ODOR
			1393		AS ABOVE, DRY, MODERATE ODOR.
l	<u> </u>				
1					
					BORING TERMINATED AT 8 FEET.
100					
10.0	<u> </u>				
15.0					
			-		
	 	1			
20.0			1		

PROJE	CT M. M.	FOWLER,	INC., PRO	PERTY (F	PARCEL #016) BORING NUMBER MF-3
CLIEN'	T NCD	OT 8.1352	402 (U-40:	10)	PAGE 1
		BER 71			GPS LOCATION N35°59'25.132" W78°51'33.235"
l .		REGIO		BING	DATE 10/22/03
	MENT _				DRILLE OPPER
EQUII.					PREPARED BY BRANSON
					TREARED DI
DEPTH	CASING	BLOWS	OVA	SAMPLE	
IN FEET	BLOWS FOOT	PER 6 INCHES	(ppm)	DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
					AT TODGOTE MEDITIM DROWN SHITY OF AVITO OF AVEVILLE DRY NO
			1.23		2" TOPSOIL, MEDIUM BROWN SILTY CLAY TO CLAYEY SILT, DRY, NO ODOR.
					ODOK.
	<u> </u>				
		ļ	1.54		AS ABOVE, DRY, NO ODOR.
			432		AS ABOVE, DRY, MODERATE ODOR.
5.0					
			1578		AS ADOME DRY STRONG ODOR STRAIT TO LARORATORY FOR
			1576	1	AS ABOVE, DRY, STRONG ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
1					
		:			BORING TERMINATED AT 8 FEET.
		-			
100					
10.0					
15.0					
		<u> </u>			
20.0			1		

-					ARCEL #016) BORING NUMBER MF-4
CLIEN	r <u>NCD</u>	OT 8.13524	402 (U-40)	10)	PAGE 1
		BER			GPS LOCATION N35°59'25.154" W78°51'33.913"
CONTR	RACTOR	REGIO	NAL PRO	BING	DATE 10/22/03
EQUIP	MENT _	GEOPI	ROBE		DRILLE OPPER
		_			PREPARED BY BRANSON
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			15.6		6" CONCRETE, MEDIUM BROWN SILTY SAND/SANDY SILT, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
			14.2		AS ABOVE, DRY, NO ODOR.
5.0			4.19		MEDIUM TO LIGHT CHOCOLATE BROWN SILTY CLAY TO CLAYEY SILT, DRY, NO ODOR.
5.U			2.95		
			2.93		AS ABOVE, DRY, NO ODOR.
					BORING TERMINATED AT 8 FEET.
10.0					
15.0					
				9	
20.0					

PROJE	CT <u>M. M.</u>	FOWLER,	INC., PRO	PERTY (P	ARCEL #016) BORING NUMBER MF-5
CLIEN'	r NCD	OT 8.13524	402 (U-401	10)	PAGE1
PROJE	CT NUM	BER 71	465		GPS LOCATION N35°59'25.292" W78°51'34.076"
		REGIC		BING	DATE 10/22/03
		GEOP			DRILLE OPPER
LQUII					PREPARED BY BRANSON
					TAGATAKAD D.T.
DEPTH	CASING	BLOWS	OVA	SAMPLE	
IN FEET	BLOWS	PER 6 INCHES	(ppm)	DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
PESI	1001	U II (UIII)		Idinob	
			1.7		2" TOPSOIL, MEDIUM BROWN SILTY SAND TO SANDY SILT, DRY, NO ODOR.
					ODOR.
			2.9		AS ABOVE, DRY, NO ODOR.
			07		POOR RECOVERY 4 TO 8 FEET. MEDIUM TO LIGHT CHOCOLATE
5.0			27		BROWN SILTY SAND TO SANDY SILT, SOFT, MOIST, NO ODOR.
5.0					SUBMIT TO LABORATORY FOR ANALYSIS.
1					BORING TERMINATED AT 8 FEET.
10.0					
150					
15.0					
			ł		
			1		
			1		
20.0			1		

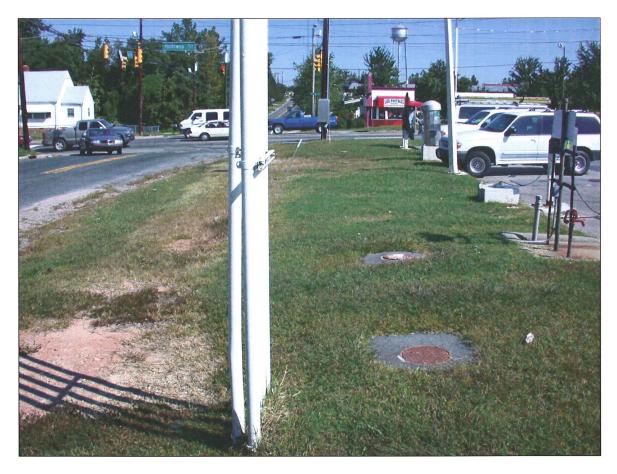
PROTE	СТ М. М.	FOWLER.	INC., PRO	PERTY (P	PARCEL #016) BORING NUMBER MF-6
		OT 8.1352			PAGE 1
		BER 71			GPS LOCATION N35°59'24.825" W78°51'34.451"
		REGIO		BING	DATE 10/22/03
		GEOP			DRILLE OPPER
_	-				PREPARED BY BRANSON
DEPTH IN	CASING BLOWS	BLOWS PER	OVA (ppm)	SAMPLE DEPTH	
FEET	FOOT	6 INCHES	/	RANGE	FIELD CLASSIFICATION AND REMARKS
			2.2		2" TOPSOIL, MEDIUM TO LIGHT CHOCOLATE BROWN SILTY SAND TO
					SANDY SILT, DRY, NO ODOR.
			2.6	1	AS ABOVE, DRY, NO ODOR.
	-				
			2.7		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR
5.0					ANALYSIS.
					EQUIPMENT REFUSAL AT 6.5 FEET.
•					
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10.0					
15.0					
		<u> </u>			
		 			
20.0			1		

PROJE	CT M. M.	FOWLER,	INC., PRO	PERTY (P	ARCEL #016) BORING NUMBER MF-7
CLIEN	r NCD	OT 8.1352	402 (U-40	10)	PAGE 1
		BER 71			GPS LOCATION N35°59'24.493" W78°51'34.651"
		REGIO		BING	DATE 10/22/03
		GEOP			DRILLE OPPER
2.6022					PREPARED BY BRANSON
DEPTH	CASING	BLOWS	OVA	SAMPLE	
IN FEET	BLOWS FOOT	PER 6 INCHES	(ppm)	DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
					2" TOPSOIL, MEDIUM TO LIGHT CHOCOLATE BROWN SILTY SAND TO
			78		SANDY SILT, DRY, NO ODOR.
			7/00		LG LDOVE DDV GEDOVG ODOD GVEDVETTO I LDOD LEODY FOR
			7622		AS ABOVE, DRY, STRONG ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
					AIVAL I SIS.
			97		AS ABOVE, DRY, MODERATE ODOR.
5.0					
					EQUIPMENT REFUSAL AT 6 FEET.
					2011.12.11.12.11.11.11.11.11.11.11.11.11.1
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10.0					
	ļ				
15.0					
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20.0					

PROJE	CT <u>M. M.</u>	FOWLER,	INC., PRO	OPERTY (P	PARCEL#016) BORING NUMBER MF-8
CLIEN	r <u>ncd</u>	OT 8.1352	402 (U-40	10)	PAGE 1
PROJE	CT NUM	BER	1465	·	GPS LOCATION N35°59'24.406" W78°51'34.695"
CONTR	RACTOR	REGIO	ONAL PRO	BING	DATE 10/22/03
EQUIP	MENT _	GEOP	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN	CASING BLOWS	BLOWS PER	OVA (ppm)	SAMPLE DEPTH	
FEET	FOOT	6 INCHES	VEF17	RANGE	FIELD CLASSIFICATION AND REMARKS
			81		2" TOPSOIL, MEDIUM BROWN SILTY SAND, DRY, SLIGHT ODOR.
			5.9%		MEDIUM TO DARK GRAY COARSE-GRAINED SAND AND PEA GRAVEL
					(TANK BACKFILL?), MOIST, SLIGHT ODOR. SUBMIT TO
					LABORATORY FOR ANALYSIS.
			4025		MEDIUM TO LIGHT CHOCOLATE BROWN SILTY SAND TO SANDY
5.0			4023		SILT, DRY, STRONG ODOR.
			5670		AS A DOME, DRAY CERDONIC ODOR
			5679		AS ABOVE, DRY, STRONG ODOR.
					BORING TERMINATED AT 8 FEET.
100					
10.0					
		 			
4					
15.0					
20.0]		

PROJE	CT M. M.	FOWLER,	INC., PRO	PERTY (F	PARCEL #016) BORING NUMBER MF-9
		OT 8.1352			PAGE 1
		BER 71			GPS LOCATION N35°59'24.344" W78°51'34.729"
		REGIO		BING	DATE 10/22/03
		GEOP			DRILLE OPPER
EQUAL.					PREPARED BY BRANSON
DEPTH	CASING	BLOWS	OVA	SAMPLE	
IN FEET	BLOWS FOOT	PER 6 INCHES	(ppm)	DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			2872		2" TOPSOIL, MEDIUM TO LIGHT CHOCOLATE BROWN SILTY SAND TO
			2672		SANDY SILT, DRY, MODERATE ODOR.
			9258		AS ABOVE, DRY, STRONG ODOR. SUBMIT TO LABORATORY FOR
			320		ANALYSIS.
			387		AS ABOVE, DRY, STRONG ODOR.
5.0					
Ì					
			687		AS ABOVE, DRY, STRONG ODOR.
					BORING TERMINATED AT 8 FEET.
10.0					
15.0	<u></u>				
		 			
			İ		
20.0			1.		

ATTACHMENT B



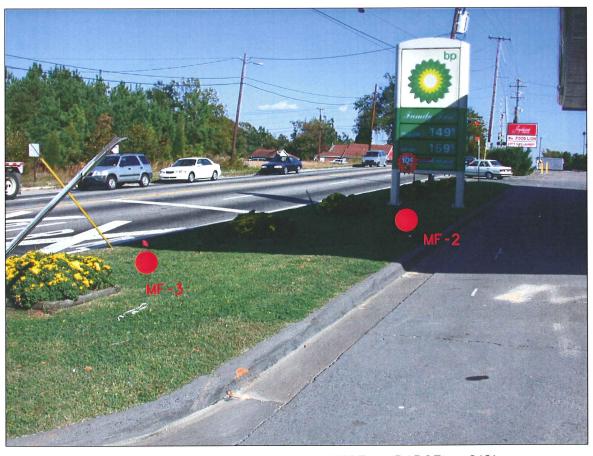
M.M. FOWLER, LLC, PROPERTY (PARCEL #016) - HOOVER ROAD R/W



M.M. FOWLER, LLC, PROPERTY (PARCEL #016) - HOLLOWAY STREET R/W



M.M. FOWLER, LLC, PROPERTY (PARCEL #016)



M.M. FOWLER, LLC, PROPERTY (PARCEL #016)



M.M. FOWLER, LLC, PROPERTY (PARCEL #016)



M.M. FOWLER, LLC, PROPERTY (PARCEL *016)



M.M. FOWLER, LLC, PROPERTY (PARCEL #016)

ATTACHMENT C



ase Narrative

Date: 11/6/03

Company: Earth Tech Remediation Services

Contact: Michael Branson

Address: 701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Client Project ID: Durham-Fowler

Prism Log-In Group No: 3245L10

The attached Laboratory Report contains the analytical results for the project identified above and includes Quality Control Data and a Chain-of-Custody copy.

Data qualifiers are flagged individually on each sample. Quality control statements and/or sample specific remarks are included in the sample comments section of the laboratory report for each sample affected.

Please call if you have any questions relating to this analytical report.

Data Reviewed by:

Signature:

Review Date:

Project Manager:

Signature:

Approval Date:

11/7/07

Note: This report should not be reproduced, except in its entirety, without the written consent of Prism Laboratories, Inc.

F:\common\casenarrative



11/6/03

Page 1 of 11

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Fowler

Customer Sample ID: MF-1

Prism Sample ID: AC97931 Matrix: soil

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03 13:00

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/28/03 04:19	EHT
SURR: GRO	93	%	34-128	8015B/5030	10/28/03 04:19	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/28/03 04:19	EHT
CALCULATIONS BASED ON DRY WT.	81	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.04g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/29/03 01:21	JMV
SURR: o-TERPHENYL	61	%	20-151	SW846-8015B	10/29/03 01:21	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/29/03 01:21	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

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Customer Project ID: Durham-Fowler

Customer Sample ID: MF-2

Prism Sample ID: AC97932 Matrix: soil

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03 13:20 Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	580	mg/kg	20	8015B/5030	10/31/03 00:49	EHT
SURR: GRO	94	%	34-128	8015B/5030	10/31/03 00:49	EHT
DILUTION FACTOR	100	mg/kg		8015B/5030	10/31/03 00:49	EHT
CALCULATIONS BASED ON DRY WT.	81	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.07g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	40	mg/kg	10	SW846-8015B	11/3/03 08:18	JMV
SURR: o-TERPHENYL	58	%	20-151	SW846-8015B	11/3/03 08:18	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/3/03 08:18	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



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11/6/03

Customer Project ID: Durham-Fowler

Earth Tech Remediation Services

Mr. Michael Branson

Customer Sample ID: MF-3

701 Corporate Ct. Dr. Ste. 475

Prism Sample ID: AC97933 Matrix: soil

Raleigh, NC 27607

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03

13:40

14:45 Lab Submittal Date/Time: 10/27/03

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	570	mg/kg	20	8015B/5030	10/31/03 17:28	EHT
SURR: GRO	92	%	34-128	8015B/5030	10/31/03 17:28	EHT
DILUTION FACTOR	100	mg/kg		8015B/5030	10/31/03 17:28	EHT
CALCULATIONS BASED ON DRY WT.	80	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.00g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	Less than	mg/kg	10	SW846-8015B	11/3/03 10:00	JMV
SURR: 0-TERPHENYL	99	%	20-151	SW846-8015B	11/3/03 10:00	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/3/03 10:00	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



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Matrix: soil

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Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Fowler

Customer Sample ID: MF-4

Prism Sample ID: AC97934

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03

13:50 14:45

Lab Submittal Date/Time: 10/27/03

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/30/03 06:08	EHT
SURR: GRO	82	%	34-128	8015B/5030	10/30/03 06:08	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/30/03 06:08	EHT
CALCULATIONS BASED ON DRY WT.	79	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.20g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	15	mg/kg	10	SW846-8015B	10/31/03 18:43	JMV
SURR: o-TERPHENYL	80	%	20-151	SW846-8015B	10/31/03 18:43	JMV
DILUTION FACTOR	. 1	mg/kg		SW846-8015B	10/31/03 18:43	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

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Customer Project ID: Durham-Fowler

Customer Sample ID: MF-5

Prism Sample ID: AC97935 Matrix: soil

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03 14:40

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/30/03 06:45	EHT
SURR: GRO	72	%	34-128	8015B/5030	10/30/03 06:45	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/30/03 06:45	EHT
CALCULATIONS BASED ON DRY WT.	81	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.08g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	Less than	mg/kg	10	SW846-8015B	11/3/03 10:45	JMV
SURR: o-TERPHENYL	89	%	20-151	SW846-8015B	11/3/03 10:45	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/3/03 10:45	JMV

Sample Comments:

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Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

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Customer Project ID: Durham-Fowler

Customer Sample ID: MF-6

Prism Sample ID: AC97936 Matrix: soil

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03 14:45

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/29/03 22:14	EHT
SURR: GRO	88	%	34-128	8015B/5030	10/29/03 22:14	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/29/03 22:14	EHT
CALCULATIONS BASED ON DRY WT.	86	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.01g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/31/03 07:52	JMV
SURR: o-TERPHENYL	80	%	20-151	SW846-8015B	10/31/03 07:52	JMV
DILUTION FACTOR	.1	mg/kg		SW846-8015B	10/31/03 07:52	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



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Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

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15:00

Customer Project ID: Durham-Fowler

Customer Sample ID: MF-7

Prism Sample ID: AC97937 Matrix: soil

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	12	mg/kg	2.0	8015B/5030	10/31/03 19:24	EHT
SURR: GRO	87	%	34-128	8015B/5030	10/31/03 19:24	EHT
DILUTION FACTOR	10	mg/kg		8015B/5030	10/31/03 19:24	EHT
CALCULATIONS BASED ON DRY WT.	86	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP. METHOD 3545 FOR DIESEL	25.25g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	17	mg/kg	10	SW846-8015B	11/3/03 11:30	JMV
SURR: o-TERPHENYL	98	%	20-151	SW846-8015B	11/3/03 11:30	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/3/03 11:30	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



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Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

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Customer Project ID: Durham-Fowler

Customer Sample ID: MF-8

Prism Sample ID: AC97938 Matrix: soil

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03 15:10

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	200	mg/kg	20	8015B/5030	10/31/03 03:15	EHT
SURR: GRO	88	%	34-128	8015B/5030	10/31/03 03:15	EHT
DILUTION FACTOR	100	mg/kg		8015B/5030	10/31/03 03:15	EHT
CALCULATIONS BASED ON DRY WT.	92	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP. METHOD 3545 FOR DIESEL	25.12g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	22	mg/kg	10	SW846-8015B	10/31/03 23:13	JMV
SURR: o-TERPHENYL	DO	%	20-151	SW846-8015B	10/31/03 23:13	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/31/03 23:13	JMV

Sample Comments:

Analysis note for DRO: The surrogate was diluted out.

Angela D. Overcash, V.P. Laboratory Services



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Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Customer Project ID: Durham-Fowler

Customer Sample ID: MF-9

Prism Sample ID: AC97939 Matrix: soil

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03

22/03 15:20

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	1.8	mg/kg	1.0	8015B/5030	10/29/03 22:50	EHT
SURR: GRO	81	%	34-128	8015B/5030	10/29/03 22:50	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/29/03 22:50	EHT
CALCULATIONS BASED ON DRY WT.	85	% DRY WT.	0.01	SM 2540 G	10/29/03 09:35	JDP
PREP. METHOD 3545 FOR DIESEL	25.20g-1mL			SW846-3545	10/29/03 12:25	CWC
DIESEL RANGE ORGANICS (DRO)	19	mg/kg	10	SW846-8015B	11/3/03 12:15	JMV
SURR: o-TERPHENYL	78	%	20-151	SW846-8015B	11/3/03 12:15	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	11/3/03 12:15	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

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Earth Tech Remediation Services

Customer Project ID: Durham-Fowler

Mr. Michael Branson

Customer Sample ID: QC

Prism Sample ID: AC97940

701 Corporate Ct. Dr. Ste. 475

Login Group: 3245L10

Matrix: n/a

Raleigh, NC 27607

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03

14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
DRO QC REPORT	The state of the s			xDRO-8015/MOD	10/28/03 11:35	JMV
OG DAMA FOR DRO / 255	Λ					

QC DATA FOR DRO / 3550 Batch ID: SDRO-102803 Spiked Sample: AC97637

True Value Observed % Recovery Acceptance Range mg/kg mg/kg _____ < 10 N/A < 10 N/A Method Blank 109 54-143% 87.4 Blank Spike 80.0 94 44-147% 80.0 75.0 Matrix Spike 44-147% 76.0 95 80.0 MS Duplicate < 36% 1 RPD

xGRO/8015MOD 10/28/03 18:50 EHT GRO QC REPORT

78

4

37-126%

< 34

OC DATA FOR 8015 / GRO SOILS Batch ID: VGCE-102903 Spiked sample: AC97935

MS Duplicate

RPD

True Value Observed % Recovery Acceptance Range mg/kg mg/kg N/A N/A < 1.0 < 1.0 Method Blank 64-124% 2.0 1.61 81 LCS 81 37-126% 1.62 2.0 Matrix Spike

1.55

2.0

NC Certification No. 402 - SC Certification No. 99012 - NC Drinking Water Cert. No. 37735 - FL Certification No. E87519

449 Springbrook Road ▲ P.O. Box 240543 ▲ Charlotte, NC 28224-0543 Phone: 704 / 529-6364 A Toll Free Number: 1-800 / 529-6364 A Fax: 704 / 525-0409



11/6/03

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Earth Tech Remediation Services

Customer Project ID: Durham-Fowler

Mr. Michael Branson

Customer Sample ID: QC

Prism Sample ID: AC97940

Matrix: n/a

701 Corporate Ct. Dr. Ste. 475 Raleigh, NC 27607

Login Group: 3245L10

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03

14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST **PARAMETER** TEST RESULT

UNITS

REPORTING LIMIT

METHOD REFERENCE DATE/TIME STARTED

ANALYST

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



Full Service Analytical & Environmental Solutions

449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543 Phone: 704/529-6364 • Fax: 704/525-0409 がある。はないのうの Report To/Contact Name: Reporting Address: Client Company Name: _

Phone: // Fig. (Yes) (No): Site Location Physical Address: Sales Contraction Site Location Name:

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(Yes) (No) **UST Project:** *Please ATTACH any project specific reporting provisions and/or QC Requirements (Yes) (No) Short Hold Analysis: Project Name: Invoice To: Address:

Turnaround time is based on business days, excluding weekends and holidays. (SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT) Requested Due Date 11 Day 12 Days 13 Days 14 Days 15 Days Samples received after 15:00 will be processed next business day. Purchase Order No./Billing Reference がなめないでき □ 6-9 Days □.Standard 10 days

X VOLATILES rec'd W/OUT HEADSPACE? PROPER PRESERVATIVES indicated? Received WITHIN HOLDING TIMES? PROPER CONTAINERS used? Received ON WET ICE? Temp Samples INTACT upon arrival? CUSTODY SEALS INTACT?

LAB USE ONLY

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Received By: (Signature

SEE REVERSE FOR TERMS & CONDITIONS

FINAL REPORT COPY

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DRINKING WATER: ONC OSC

Rrism Field Service

☐ Hand-delivered

☐ Fed Ex ☐ UPS

GROUNDWATER:

ONCOSC DINCOSCONCOSCO

UST:

CERCLA

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY.

SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

Jan State Sal

Relinquished By: (Signature)

Relinquished By: (Signature)

LANDFILL

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COSTA (C) Logsin Group No.

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

701 Corporate Center Drive, Suite 475, Graffet, Worth Carolin

December 18, 2003

Mr. Greg Smith North Carolina Department of Transportation Geotechnical Engineering Unit 1589 Mail Service Center Raleigh, North Carolina 27699-1589

Reference:

Preliminary Site Assessment

Latin American Food, LLC, Property (Parcel #020)

2502 Holloway Street

Durham, Durham County, North Carolina NCDOT Project 8.1352402 (U-4010)

WBS Element 35011.1.1 Earth Tech Project No. 71465

Dear Mr. Smith:

Earth Tech of North Carolina, Inc., (Earth Tech) has completed the Preliminary Site Assessment conducted at the above-referenced property. The work was performed in accordance with the Technical and Cost proposal dated October 8, 2003, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated October 13, 2003. Activities associated with the assessment consisted of collecting soil samples for laboratory analysis. The purpose of this report is to document the field activities, present the laboratory analyses, and provide recommendations regarding the property.

Location and Description

The Latin American Food, LLC, Property (Parcel #020) is located at 2502 Holloway Street (NC98) in Durham, Durham County, North Carolina (Figure 1). This location is approximately 100 feet north of the intersection of Holloway Street and Junction Road. Based on information supplied by the NCDOT and the site visit, Earth Tech understands that the site is a former convenience store/gas station where four 10,000gallon underground storage tanks (USTs) have reportedly been removed. The property is currently in use as a restaurant. The proposed right-of-way does not affect the building or the former UST area, but it encompasses most of the front and sides of the former pump island area.

Earth Tech reviewed the North Carolina Department of Environment and Natural Resources (NCDENR) Incident Management database and Incident Number 18016 was listed for this location. According to the Incident Management Database, the incident was assigned when the facility was the Buy and Go Citgo. The contamination apparently was discovered during a pre-buy investigation when free product was observed in a monitoring well. The site was subsequently cleaned up and the incident was closed out in June 1999. Because of the presence of USTs and the incident Telephone

919.854.6200

Facsimile

919.854.6259

Mr. Greg Smith December 18, 2003 Page 2

number, a Preliminary Site Assessment was requested to evaluate the soils within the right-of-way.

According to the UST registration database, the USTs on the property were operated under Facility Number 0-029947. The operator and owner of the tanks are listed as follows:

Owner

Cary Oil Company PO Box 4649, 8015 Chapel Hill Rd Cary, North Carolina 27519 (919) 467-1836-6700 Operator

Latin American Food/Buy & Go 2502 Holloway Street Durham, North Carolina 27703 (919) 598-6770

Site Assessment Activities

On October 22, 2003, Earth Tech mobilized to the site to conduct a Geoprobe® direct push investigation to evaluate soil conditions within the proposed right-of-way. Continuous sampling using direct push technology (Regional Probing of Raleigh, North Carolina) resulted in generally good recovery of soil samples from the direct-push holes. Soil samples were collected and contained in 4-foot long acetate sleeves inside the direct push sampler. Each of these sleeves was divided in half for soil sample screening. Each 2-foot interval was placed in a resealable plastic bag and the bag was set aside for a sufficient amount of time to allow volatilization of organic compounds from the soil to the bag headspace. The probe of a flame ionization detector/photo ionization detector (FID/PID) was inserted into the bag and the reading was recorded. After terminating the sample hole, the soil sample from the depth interval with the highest FID/PID reading was submitted to Prism Laboratories, Inc., in Charlotte, North Carolina, using standard chain-of-custody procedures. The laboratory analyzed the soil samples for total petroleum hydrocarbons (TPH) using extraction methods 3550 (diesel fuel/fuel oil) and 5030 (gasoline).

Five direct-push holes (LA-1 through LA-5) were advanced within the right-of-way at the site to a depth of 8 feet (Figure 2 and Attachment A). These borings were placed to evaluate soil conditions in a cut section on the property. Borings LA-1 and LA-2 were located in the likely pump island area in the proposed cut section. These borings encountered hydrocarbon odors and borings LA-3 through LA-5 were located to evaluate the extent of contamination (Attachment B). The lithology encountered by the direct-push samples generally was consistent throughout the site. The ground surface was covered with about 4 inches of concrete. Below the surface treatment was about 2 to 4 feet of a medium brown to mottled brown silty clay. Underlying this clay was a medium to chocolate brown clayey silt. No groundwater was observed in any of the borings. Based on field screening, soil samples from a variety of depths were submitted

Mr. Greg Smith December 18, 2003 Page 3

for laboratory analysis, which are summarized in Table 1. Because no groundwater was encountered, no groundwater sample was collected for analysis.

Analytical Results

Based on the laboratory reports, summarized in Table 1 and presented in Attachment C, petroleum hydrocarbon compounds were detected in four of the five soil samples collected from the site (Figure 3). Total petroleum hydrocarbons (TPH) concentrations identified as diesel fuel were detected in soil sample LA-1 at a concentration of 18 milligrams per kilogram (mg/kg) and in soil sample LA-2 at a concentration of 20 mg/kg. TPH concentrations identified as gasoline were detected in soil sample LA-4 at a concentration of 12 mg/kg and in soil sample LA-5 at a concentration of 1.2 mg/kg. No other soil sample contained detectable TPH concentrations. According to the North Carolina Underground Storage Tank Section's Underground Storage Tank Closure Policy dated August 24, 1998, the action level for TPH analyses is 10 mg/kg for both gasoline and diesel fuel. However, that agency's "Guidelines for Assessment and Corrective Action," dated April, 2001, does not allow for use of TPH analyses for confirmation of the extent of petroleum contamination or its cleanup. As a result, while TPH concentrations are no longer applicable in confirming if soil contamination is present, this analysis is a legitimate screening tool. Based on the TPH action level for UST closures, the assumed action level is 10 mg/kg. The soil sample from borings LA-1, LA-2, and LA-4 contained TPH concentrations above the 10 mg/kg assumed action level.

Conclusions and Recommendations

A Preliminary Site Assessment was conducted to evaluate the Latin American Foods, LLC, Property (Parcel #020) at 2502 Holloway Street in Durham, Durham County, North Carolina. A total of five soil borings were advanced to evaluate the soil conditions in a cut section on the proposed right-of-way at the property. The laboratory reports of four of the five soil samples from these borings suggest that diesel fuel or gasoline is present above the detection limits. However, TPH concentrations above the assumed action level of 10 mg/kg were present only in soil samples from borings LA-1, LA-2, and LA-4. No groundwater sample was collected for analysis to evaluate the groundwater conditions.

To evaluate the volume of soil requiring possible remediation, an isoconcentration map for TPH concentrations above 10 mg/kg (Figure 3) was constructed using the analytical data. The volume of potentially contaminated soil for this site was estimated based on the 10-mg/kg isoconcentration contours.

Mr. Greg Smith December 18, 2003 Page 4

The analytical results of the soil sample from borings LA-1 and LA-2 indicate a diesel fuel concentration of 18 and 20 mg/kg, respectively. The analytical results of the soil sample from boring LA-4 indicate a gasoline concentration of 12 mg/kg. The soil samples from the remaining borings either contained no detectable TPH concentrations or concentrations below the 10-mg/kg action level. For the purpose of estimating the volume of contaminated soil in the right-of-way, Earth Tech has assumed (from the field screening data in Table 1) an average contaminated soil thickness of 4 feet with a geometry as shown on Figure 3. Based on a contamination thickness of 4 feet with a width of 20 feet and a length of 50 feet, a volume of approximately 150 cubic yards of contaminated soil is estimated on the right-of-way in this area.

The volume estimated above was calculated from TPH analytical data, which is no longer valid for remediation of sites reported after January 2, 1998. After this date, MADEP EPH/VPH and EPA Method 8260/8270 analyses will likely be required to confirm cleanup. However, these analyses do not correlate exactly with TPH data and, as a result, the actual volume of contaminated soil may be significantly higher or lower. Earth Tech recommends that a copy of this report be submitted to the Division of Waste Management, UST Section, in the Raleigh Regional Office. If you have any questions, please contact me at (919)854-6238.

Sincerely,

Michael W. Branson, P.G.

Project Manager

Attachments

c: Project File

TABLE 1

FIELD SCREENING AND ANALYTICAL RESULTS LATIN AMERICAN FOODS PROPERTY (PARCEL #020) DURHAM, DURHAM COUNTY, NORTH CAROLINA NCDOT PROJECT NO. 8.1352402 (U-4010) EARTH TECH PROJECT NO. 71465

LOCATION	DEPTH (ft)	FID READING	SAMPLE ID	ANALYTICAL	ASSUMED TPH
		(ppm)		RESULTS	ACTION LEVEL
				(mg/kg)	(mg/kg)
LA-1	0 - 2	38			
	2 - 4	318			
	4 - 6	1029	LA-1	3550 (18)	10
				5030 (BQL)	10
	6 - 8	83			
LA-2	0 - 2	1.51			
	2 - 4	1.51			
	4 - 6	25			
	6 - 8	78	LA-2	3550 (20)	10
				5030 (BQL)	10
LA-3	0 - 2	0.96			
	2 - 4	1.02			
	4 - 6	1.24	LA-3	3550 (BQL)	10
				5030 (BQL)	10
	6 - 8	1.15			
LA-4	0 - 2	28			
	2 - 4	30			
	4 - 6	89			
	6 - 8	2354	LA-4	3550 (BQL)	10
				5030 (12)	10
LA-5	0 - 2	17			
	2 - 4	93			
	4 - 6	215			
	6 - 8	675	LA-5	3550 (BQL)	10
				5030 (1.2)	10

3550 - High boiling point TPH fraction (diesel fuel/fuel oil).

5030 - Low boiling point TPH fraction (gasoline).

BQL - Below quantitation limit.

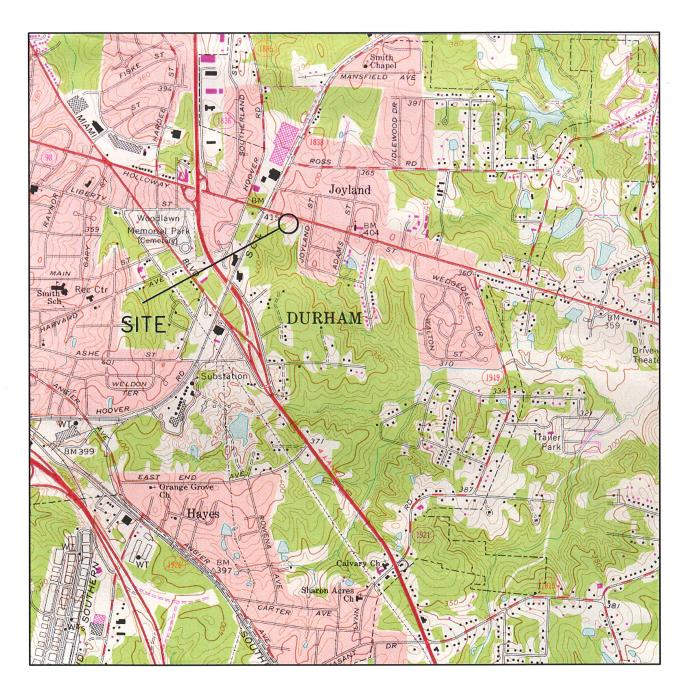
ppm - parts per million.

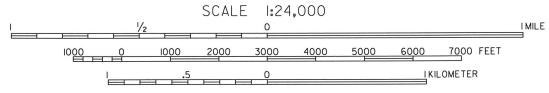
mg/kg - milligrams per kilogram.

BOLD area indicates that concentration is above the assumed action level.

FIGURES





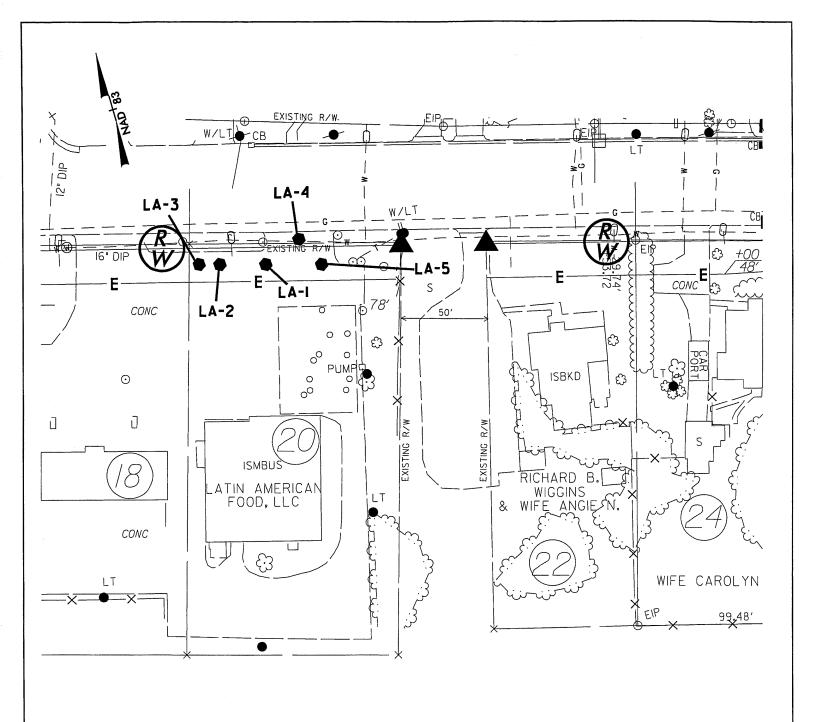


SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: SOUTHEAST DURHAM, NC (1981)



FIGURE I LOCATION MAP

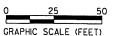
LATIN AMERICAN FOODS PROPERTY (PARCEL #020)
DURHAM, DURHAM COUNTY, NORTH CAROLINA



LEGEND

LA-I

SOIL SAMPLE LOCATION AND IDENTIFICATION



E A R T H



TECH

FIGURE 2

SITE MAP

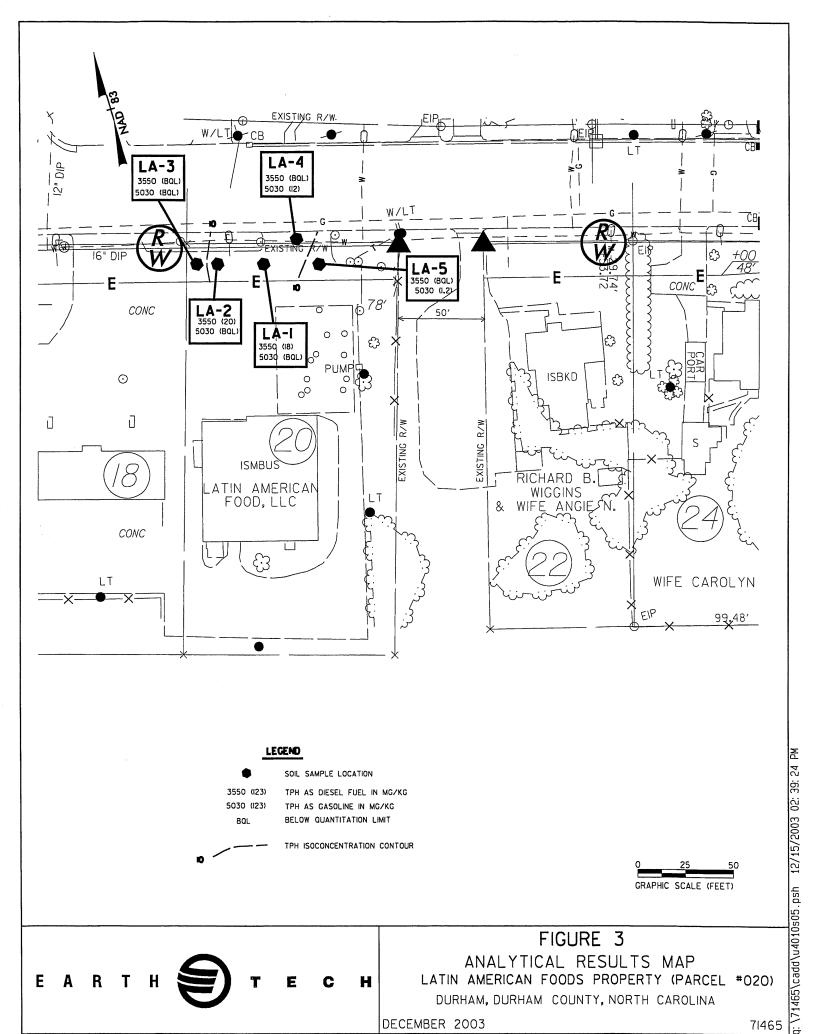
LATIN AMERICAN FOODS PROPERTY (PARCEL #020)

DURHAM, DURHAM COUNTY, NORTH CAROLINA

DECEMBER 2003

71465

q: \71465\cadd\u4010s05.psh 12/15/2003 02: 30: 04 PM



DECEMBER 2003

71465

ATTACHMENT A

PROJE	CT LATE	N AMERIC	AN FOOD	S (PARCE	L #020) BORING NUMBER LA-1					
CLIEN'	T NCD	OT 8.1352	402 (U-40	10)	PAGE 1					
PROJE	CT NUM	BER 71	1465		GPS LOCATION N35°59'23.696" W78°51'27.558"					
CONTRACTOR REGIONAL PROBING			ONAL PRO	BING	DATE 10/22/03					
		GEOP			DRILLE OPPER					
	_				PREPARED BY BRANSON					
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS					
			38		5" CONCRETE, MEDIUM BROWN SILTY CLAY, DRY, NO ODOR.					
	<u>.</u>		318		MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT, DRY,					
					MODERATE ODOR.					
5.0			1029		AS ABOVE, DRY, MODERATE ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.					
	. , , , , , , , , , , , , , , , , , , ,		83		AS ABOVE, DRY, SLIGHT ODOR					
·										
					BORING TERMINATED AT 8 FEET.					
10.0										
:										
15.0										

PROJE	CT LATE	N AMERIC	AN FOOD	S (PARCE	L #020) BORING NUMBER LA-2
		OT 8.1352			PAGE 1
PROJECT NUMBER 71465			1465		GPS LOCATION N35°59'23.769" W78°51'27.778"
CONTI	RACTOR	REGIO	ONAL PRO	DBING	DATE 10/22/03
EQUIP	MENT _	GEOP	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			1.51		3" CONCRETE, MEDIUM BROWN SILTY CLAY, DRY, NO ODOR.
			1.51		MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT, DRY, NO
					ODOR.
			25		AS ABOVE, DRY, NO ODOR.
5.0					
			78		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR
					ANALYSIS.
					BORING TERMINATED AT 8 FEET.
10.0					
15.0				į	

PROJE	CT LATE	N AMERIC	AN FOOD	S (PARCE	L #020) BORING NUMBER LA-3
CLIENT NCDOT 8.1352402 (U-4010)			402 (U-40	10)	PAGE 1
PROJE	CT NUM	IBER 7	1465		GPS LOCATION N35°59'23.811" W78°51'27.964"
CONT	RACTOR	REGIO	ONAL PR	OBING	DATE 10/22/03
EQUIP	MENT _	GEOP	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN	CASING BLOWS	BLOWS PER	OVA (ppm)	SAMPLE DEPTH	
FEET	FOOT	6 INCHES		RANGE	FIELD CLASSIFICATION AND REMARKS
			0.96		4" CONCRETE, MEDIUM BROWN SILTY CLAY, DRY, NO ODOR.
			1.02		MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT, DRY, NO
					ODOR.
			1.24		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR
5.0					ANALYSIS.
			1.15		AS ABOVE, DRY, SLIGHT ODOR
					BORING TERMINATED AT 8 FEET.
10.0					
10.0				ĺ	
15.0					

20.0

PROJE	CT LATI	N AMERIC	AN FOOD	S (PARCE	L #020) BORING NUMBER LA-4
CLIEN'	r NCD	OT 8.1352	402 (U-40	10)	PAGE 1
PROJECT NUMBER 71465			1465		GPS LOCATION N35°°59'23.784" W78°51'27.494"
CONTI	RACTOR	REGIO	ONAL PRO	DBING	DATE 10/22/03
EQUIP:	MENT _	GEOP	ROBE		DRILLE OPPER
					PREPARED BY BRANSON
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			28		4" CONCRETE, MEDIUM BROWN SILTY CLAY, DRY, NO ODOR.
			30		MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT, DRY, NO
					ODOR.
			89		AS ABOVE, DRY, MODERATE ODOR.
5.0					
			2354		AS ABOVE, DRY, STRONG ODOR. SUBMIT TO LABORATORY FOR
					ANALYSIS.
					BORING TERMINATED AT 8 FEET.
10.0					
15.0					

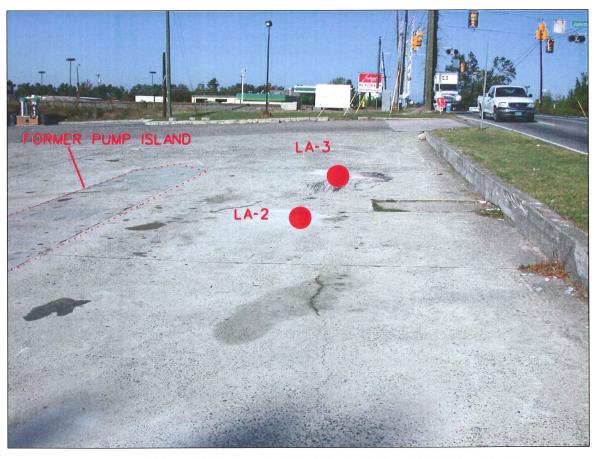
PROJE	CT LATE	N AMERIC	AN FOOD	S (PARCE	L #020) BORING NUMBER LA-5				
CLIEN	T NCD	OT 8.1352	402 (U-40	10)	PAGE 1				
PROJE	CT NUM	BER	1465		GPS LOCATION N35°59'23.678" W78°51'27.327"				
CONTI	RACTOR	REGIO	ONAL PRO	DBING	DATE 10/22/03				
EQUIPMENT GEOPROBE			ROBE	····	DRILLE OPPER				
					PREPARED BY BRANSON				
DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS				
			17		4" CONCRETE, MEDIUM BROWN SILTY CLAY, DRY, NO ODOR.				
			93		AS ABOVE, DRY, SLIGHT ODOR.				
			215		MEDIUM TO LIGHT CHOCOLATE BROWN CLAYEY SILT, DRY, SLIGHT				
5.0					ODOR.				
			675		AS ABOVE, DRY, STRONG ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.				
					BORING TERMINATED AT 8 FEET.				
10.0									
15.0									

_ 20.0

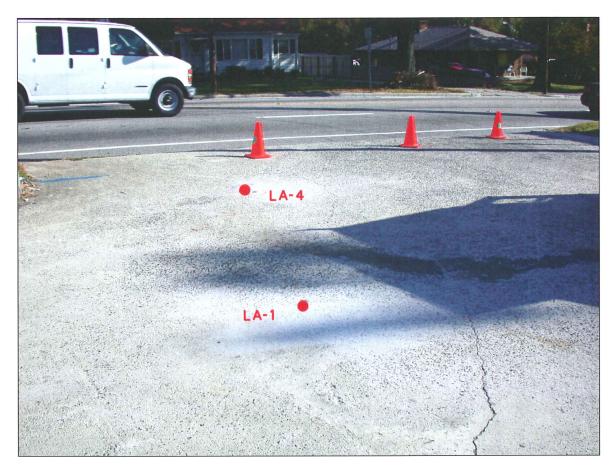
ATTACHMENT B



LATIN AMERICAN FOODS PROPERTY (PARCEL #020)



LATIN AMERICAN FOODS PROPERTY (PARCEL #020)



LATIN AMERICAN FOODS PROPERTY (PARCEL #020)



LATIN AMERICAN FOODS PROPERTY (PARCEL #020)

ATTACHMENT C



Sase Narrative

Date: 11/6/03

Company: Earth Tech Remediation Services

Contact: Michael Branson

Address: 701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Client Project ID: Latin American Foods

Prism Log-In Group No: 3244L6

The attached Laboratory Report contains the analytical results for the project identified above and includes Quality Control Data and a Chain-of-Custody copy.

Data qualifiers are flagged individually on each sample. Quality control statements and/or sample specific remarks are included in the sample comments section of the laboratory report for each sample affected.

Please call if you have any questions relating to this analytical report.

Data Reviewed by:

Signature:

Review Date:

Project Manager:

Signature:

Approval Date:

Note: This report should not be reproduced, except in its entirety, without the written consent of Prism Laboratories, Inc.

F:\common\casenarrative



11/6/03

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Page 1 of 7

Matrix: soil

08:15

Customer Project ID: Latin American Foods

Customer Sample ID: LA-1

Prism Sample ID: AC97925

Login Group: 3244L6

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/30/03 03:42	EHT
SURR: GRO	79	%	34-128	8015B/5030	10/30/03 03:42	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/30/03 03:42	EHT
CALCULATIONS BASED ON DRY WT.	84	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.08g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	18	mg/kg	10	SW846-8015B	10/28/03 21:37	JMV
SURR: o-TERPHENYL	87	%	. 20-151	SW846-8015B	10/28/03 21:37	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/28/03 21:37	JMV
		. · ·				

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 2 of 7

Earth Tech Remediation Services

Customer Project ID: Latin American Foods

Mr. Michael Branson

Raleigh, NC 27607

Customer Sample ID: LA-2

701 Corporate Ct. Dr. Ste. 475

Prism Sample ID: AC97926 Login Group: 3244L6

Matrix: soil

Sample Collection Date/Time: 10/22/03

08:45

Lab Submittal Date/Time: 10/27/03

14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/28/03 01:53	EHT
SURR: GRO	82	%	34-128	8015B/5030	10/28/03 01:53	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/28/03 01:53	EHT
CALCULATIONS BASED ON DRY WT.	85	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.06g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	20	mg/kg	10	SW846-8015B	10/28/03 23:52	JMV
SURR: o-TERPHENYL	79	%	20-151	SW846-8015B	10/28/03 23:52	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/28/03 23:52	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 3 of 7

Earth Tech Remediation Services

Customer Project ID: Latin American Foods

Mr. Michael Branson

Customer Sample ID: LA-3

Matrix: soil

701 Corporate Ct. Dr. Ste. 475

Prism Sample ID: AC97927 Login Group: 3244L6

Raleigh, NC 27607

Sample Collection Date/Time: 10/22/03

09:00

Lab Submittal Date/Time: 10/27/03

14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	Not detected	mg/kg	1.0	8015B/5030	10/28/03 02:29	EHT
SURR: GRO	83	%	34-128	8015B/5030	10/28/03 02:29	EHT
DILUTION FACTOR	1	mg/kg		8015B/5030	10/28/03 02:29	EHT
CALCULATIONS BASED ON DRY WT.	88	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.11g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/28/03 20:51	JMV
SURR: o-TERPHENYL	93	%	20-151	SW846-8015B	10/28/03 20:51	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/28/03 20:51	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 4 of 7

Earth Tech Remediation Services

Customer Project ID: Latin American Foods

Mr. Michael Branson

Customer Sample ID: LA-4

701 Corporate Ct. Dr. Ste. 475

Prism Sample ID: AC97928 Matrix: soil

Raleigh, NC 27607

Login Group: 3244L6

Sample Collection Date/Time: 10/22/03

09:15

Lab Submittal Date/Time: 10/27/03

14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE .	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	12	mg/kg	1.0	8015B/5030	11/1/03 06:20	EHT
SURR: GRO	[.] 99	%	34-128	8015B/5030	11/1/03 06:20	EHT
DILUTION FACTOR	. 5	mg/kg		8015B/5030	11/1/03 06:20	EHT
CALCULATIONS BASED ON DRY WT.	88	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.08g-1mL			SW846-3545	10/27/03 15:45	CMC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/28/03 20:06	JMV
SURR: o-TERPHENYL	93	%	20-151	SW846-8015B	10/28/03 20:06	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/28/03 20:06	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 5 of 7

Earth Tech Remediation Services

Customer Project ID: Latin American Foods

Mr. Michael Branson

Raleigh, NC 27607

Customer Sample ID: LA-5

701 Corporate Ct. Dr. Ste. 475

Prism Sample ID: AC97929 Login Group: 3244L6

Matrix: soil

09:30 Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03

14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER	TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
GASOLINE RANGE ORGANICS (GRO)	1.2	mg/kg	1.0	8015B/5030	10/28/03 03:06	EHT
SURR: GRO	91	%	34-128	8015B/5030	10/28/03 03:06	EHT
DILUTION FACTOR	1.	mg/kg		8015B/5030	10/28/03 03:06	EHT
CALCULATIONS BASED ON DRY WT.	81	% DRY WT.	0.01	SM 2540 G	10/28/03 10:25	LT
PREP. METHOD 3545 FOR DIESEL	25.07g-1mL			SW846-3545	10/27/03 15:45	CWC
DIESEL RANGE ORGANICS (DRO)	Not detected	mg/kg	10	SW846-8015B	10/29/03 00:37	JMV
SURR: o-TERPHENYL	77	%	20-151	SW846-8015B	10/29/03 00:37	JMV
DILUTION FACTOR	1	mg/kg		SW846-8015B	10/29/03 00:37	JMV

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



11/6/03

Page 6 of 7

Earth Tech Remediation Services

Customer Project ID: Latin American Foods

Mr. Michael Branson

Customer Sample ID: QC

701 Corporate Ct. Dr. Ste. 475

Prism Sample ID: AC97930 Matrix: n/a

Raleigh, NC 27607

Login Group: 3244L6

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER		TEST RESULT	UNITS	REPORTING LIMIT	METHOD REFERENCE	DATE/TIME STARTED	ANALYST
DRO QC REPORT QC DATA FOR DROBatch ID: SDROSpiked Sample:	-102803 AC97637	Observed mg/kg	% Recovery	Acceptano	xDRO-8015/MOD e Range	10/28/03 11:35	JMV
Method Blank Blank Spike Matrix Spike MS Duplicate RPD	N/A 80.0 80.0 80.0	< 10 87.4 75.0 76.0	N/A 109 95 95	< 10 54-14 44-14 44-14 < 36	138 178 178		

GRO QC REPORT

xGRO/8015MOD 10/25/03 19:08 EHT

OC DATA FOR 8015 / GRO SOILS Batch ID: V3400-102703 Spiked sample: AC97913

	True Value mg/kg	Observed mg/kg	% Recovery	Acceptance Range
Method Blank LCS Matrix Spike MS Duplicate RPD	N/A 2.0 2.0 2.0	< 1.0 1.76 1.64 1.59	N/A 88 82 80 3	< 1.0 64-124% 37-126% 37-126% < 34

NC Certification No. 402 - SC Certification No. 99012 - NC Drinking Water Cert. No. 37735 - FL Certification No. E87519

449 Springbrook Road ▲ P.O. Box 240543 ▲ Charlotte, NC 28224-0543 Phone: 704 / 529-6364 A Toll Free Number: 1-800 / 529-6364 A Fax: 704 / 525-0409



11/6/03

Earth Tech Remediation Services

Mr. Michael Branson

701 Corporate Ct. Dr. Ste. 475

Raleigh, NC 27607

Page 7 of 7

Customer Project ID: Latin American Foods

Customer Sample ID: QC

Prism Sample ID: AC97930 Matrix: n/a

Login Group: 3244L6

Sample Collection Date/Time: 10/22/03

Lab Submittal Date/Time: 10/27/03 14:45

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

TEST PARAMETER TEST RESULT

UNITS

REPORTING LIMIT METHOD REFERENCE DATE/TIME STARTED

ANALYST

Sample Comments:

Angela D. Overcash, V.P. Laboratory Services



CHAIN OF CUSTODY RECORD QUOTE # TO ENSURE PROPER BILLING:

Samples INTACT upon arrival?

YES NO

N N

		e)	Zero Head Space	anics Analysis (2	VOA = Volatile Organics Analysis (Zero Head Space)	Teflon-Lined Cap \	TL = Teflon-I	P = Plastic;	G = Glass	Amber C = Clear	Α =	*CONTAINER TYPE CODES:
PORT COPY	FINAL POF		ONC OSC	C DNC DSC	O O O O SC	i			ONC OSC	<u>'</u>	JSC DNC D	
SEE REVERSE FOR	SEE REV		OTHER:	LANDFILL	CERCLA	RCRA:	LID WASTE:	TER: SOLID	DRINKING WATER:	-	낅	: US
									Other	Prism Field Service	☐ Hand-delivered ☐ Prism	☐ Fed Ex ☐ UPS ☐ Hand
			Vo.	Log-In Group No.	WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY.	ORTATION TO 1 NATORY.	LS FOR TRANSP AT THE LABOR	CUSTODY SEA	APED SHUT WITH D AGAINST COC L	RS SHOULD BE T	NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST !	Method of Shipment: NOTE:
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	i.	CUSTODY SEALS INTACT? VOLATILES rec'd W/OUT HEADSPACE?	CUSTOD		release ATTACH any project specific reporting provisions and/or QC Requirements	ny project specii ΩC Requirement	relase All Ach any project specimic provisions and/or QC Requirements	provisions		• Charlotte, NC 9	P.O. Box 240543 Fax: 704/525-0409	449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543 Phone: 704/529-6364 • Fax: 704/525-0409
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